Minnesota State Medical Association, Annual Meeting, Duluth, June 29-30 and July 1, 1942

MINNESOTA MEDICINE

Journal of the Minnesota State Medical Association, Southern Minnesota Medical Association, Northern Minnesota Medical Association, Minnesota Academy of Medicine and Minneapolis Surgical Society

PUBLISHED MONTHLY BY THE MINNESOTA STATE MEDICAL ASSOCIATION

JUNE, 1942

Volume 25 — Number 6 **40 cents a copy — $3.00 a year**

Contents

Contents of MINNESOTA MEDICINE copyrighted by Minnesota State Medical Association, 1942

Entered at the Post Office in Minneapolis as second class mail matter. Accepted for mailing at the special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized July 13, 1918.

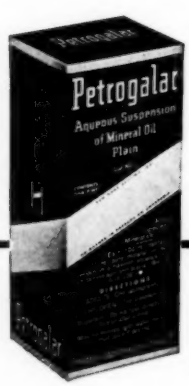
Printed in U. S. A.

Throw out your chest!

● Navy training helps to build strong, healthy bodies.

First in command of establishing health habits in civilian life is the family physician. When the daily routine for regular bowel habits is disturbed, the physician's recommendation of Petrogalar* frequently facilitates a return to normal.

Petrogalar helps soften the stool and renders it mobile for comfortable bowel movement. Consider Petrogalar for the treatment of constipation.



FOR THE TREATMENT OF CONSTIPATION

Petrogalar

*Reg. U. S. Pat. Off. Petrogalar is an aqueous suspension of pure mineral oil each 100 cc. of which contains 65 cc. pure mineral oil suspended in an aqueous jelly containing agar and acacia.

Petrogalar Laboratories, Inc. • 8134 McCormick Boulevard • Chicago, Illinois

MINNESOTA MEDICINE

Journal of the Minnesota State Medical Association, Southern Minnesota Medical Association, Northern Minnesota Medical Association, Minnesota Academy of Medicine and Minneapolis Surgical Society

Volume 25 June, 1942 No. 6

HEALTH AND SAFETY OF WAR-TIME WORKERS

LEVERETT D. BRISTOL, M.D., DR. P. H., HEALTH DIRECTOR
American Telephone and Telegraph Company
New York, New York

PROMOTING the health and safety of war-time industrial workers, who produce the materials and carry on the civilian services for the men behind the guns, is of vital concern to the organized medical profession, as well as to all other citizens of the United States. It is my purpose to present this subject under the following five headings: (1) Employe Relations; (2) Management Relations; (3) Medical Relations; (4) Public Health Relations; and (5) Educational Relations. The first two connote the demand or need for industrial health services, the last three—the supply of such services.

Employe Relations

Man power is now the greatest need both of industrial production and of military success. Adequate man power is dependent on the highest type of mental and physical fitness. The speed-up of production, the development of modern material and methods, the increased employment of new workers will require new industrial health and safety routines and regulations, more intensive study of occupational diseases and industrial poisons, and the extension and improvement of all health and safety education. Our present needs require a strengthening and broadening of the entire industrial health and safety program all along the line from private industry to local, state and federal jurisdictions. As emphasized by Surgeon General Parran of the United States Public Health Service, "Industrial hygiene must keep pace with the needs arising from high speed assembly lines, which will employ some fifteen million men and women within the year. Great Britain learned that it is urgently necessary to have the full-time services of a trained industrial physician in every large plant. Less than one-seventh of our workers have that service now." As a further indication of the need for promoting more adequate health and safety services for wartime workers, is the fact that in 1941, according to the United States Public Health Service, there was a 12 per cent increase in disabling cases of sickness and non-industrial injuries among male employes of various industries as compared with the mean for the last ten years.

An adequate industrial health program should be a strong arm in winning the war, particularly in the preservation of expert workers and assisting in the development of additional skilled workers. Reducing lost time due to occupational and non-occupational illness and accidents, and cutting down excessive exposure to injurious materials are parts of the program which will be conducive to maximum national effectiveness and production. It is particularly necessary that studies be made to determine unfavorable environmental factors in the production and use of war equipment and munitions. Industrial health should involve, primarily, a program of health conservation, emergency care and disease and accident prevention among employes. Industrial medicine, surgery, engineering, toxicology, nursing, record keeping, plant hygiene, sanitary inspection and health and safety education are the chief means for carrying out a program. Too often these have been considered as ends in themselves.

Our active war efforts already are being reflected in rapidly increased industrial activity and

Address presented before the Hennepin County Medical Society, Minneapolis, Minnesota, May 4, 1942.

production in many centers. Added number of workers in a plant, without a corresponding increase in working space, may easily create serious conditions of overcrowding and thus suddenly augment potential industrial sickness and accident hazards. Failure to appreciate the need for a possible change in methods and procedures in the handling of new or increased amounts of chemicals and other substances, may result in serious injury to the health and bodies of workers. Moreover, wartime industrial health problems do not exist in the plant alone; attention must be given also to the home and housing conditions of workers, as well as to their nutrition, recreation and morale or mental health. In various areas and communities, some of which have sprung up "over night," the increasing influx of workers gives the subjects of adequate housing and nutrition particular importance in the war program. In this connection, where possible and feasible, it is suggested that in those industries which do not, during peacetimes, ordinarily provide lunchrooms or cafeterias for the workers, special plant canteens might be set up, under the direction of expert nutritionists, to make available nourishing, energy-building foods as required.

Management Relations

One of the most significant recent developments in relation to business management's organized interest in the health of the worker was the creation of an Advisory Health Committee of the Insurance Department of the Chamber of Commerce of the United States, which held its first meeting in March, 1942. This Committee will consider the possible development of an industrial health program to be carried on by the Chamber in coöperation with affiliated trade associations. It represents a broadening of the health work of the Chamber, which for many years has promoted more adequate city and rural health administration through annual Inter-Chamber Health Conservation contests. The National Association of Manufacturers also has a Committee on Healthful Working Conditions.

In management's organization of personnel for industrial health service, it is assumed that (1) the larger the company, the more specialization and full-time service is possible; and that (2) the smaller the company, the more generalization is required and the greater is the necessity for the unification of positions and functions, and the need for assistance in industrial health work from part-time private practitioners of medicine and local health departments or associations. The development of a practical program for health supervision of employes of smaller plants and business concerns probably is the greatest unmet need in the whole realm of our wartime industrial health efforts. This should involve, primarily, such activities as (a) employe health and safety control; (b) office and plant hygiene control; (c) health and safety education and (d) an adequate system of records. For smaller business concerns, which employ approximately 85 per cent of all the workers, much of the health and medical services ultimately must be made available either (a) by groups of these smaller concerns working together through some joint plant of centralization—as, for example, those in one building or trade group or in a restricted locality—on the basis of pooling of costs for medical, nursing, and other assistance required; or (b) by local community agencies such as health departments, university institutes of industrial hygiene, or organized local medical societies or groups of physicians.

A wide range of practice exists in larger industries so far as management's organization of medical work is concerned. A majority of these industries have medical units of their own, some of which are highly organized with medical and nursing staffs and all of the modern equipment required. In these units the following services usually are available:

1. First Aid in sickness and accidents.
2. Advice on medical or surgical problems.
3. Attention to ailments of short duration and of a character not requiring absence from work.
4. Laboratory and other examinations in coöperation with employe's physician.
5. Routine physical examinations for employment or placement, or in cases of suspected disease.
6. Periodic health examinations, particularly for those in hazardous occupations.
7. Advice on plant sanitation and hygiene.
8. Preparation of health literature.
9. Coöperative services with Benefit or Sickness Insurance Committees and Compensation Boards.

Most of the larger companies provide nursing services in connection with their medical activities. In fact, industrial nursing is becoming one of the important components of industrial health.

Noteworthy progress also is being made to provide part-time nursing service for small industries by local visiting nursing associations and other groups.

While management as a rule has an abiding interest in the personal health and well-being of each individual worker, the great problems which the manufacturing or business executive must face are those more impersonal mass extravagances of lost time, decreased efficiency and mounting costs—the triple offspring of industrial sickness and accidents. One of the leading management representatives states that absenteeism loss in the United States, or in an individual plant, may be approximated in dollars and cents by multiplying the number of workers by seventy dollars per year. Winning the war requires among other things that these losses be prevented or controlled so far as possible!

Medical Relations

The science and art of industrial health, like the worker whose mental and physical fitness it serves to protect and promote, have evolved through periods of infancy, childhood, and adolescence into vigorous adult life. It may be of interest to emphasize the changing characteristics of organized industrial health promotion through these four periods and to note the relationship of the practitioner of medicine to this development.

Development Periods of Industrial Health

1. *Infancy—Traumatic Surgery.*—A little over twenty-five years ago, interest in the health of workers in various industries of the United States was aroused, particularly by the need for surgical care or treatment of industrial accidental injuries and in the newer compensation cases associated therewith. Traumatic surgery rapidly developed as a specialty, and the company surgeon became the first central figure in the field of early industrial medicine.

2. *Childhood—Accident Prevention.* — The next stage in the development of industrial health as we know it today was that of accident prevention. The key person of this period has been the safety engineer. However, there are important medical aspects of accident control, and the practicing physician working in the industrial field has much he may contribute to the solution of this problem of accident prevention.

3. *Adolescence—Occupational Disease Control.*—The third stage in our well-rounded development of industrial health in this country has been associated with many significant discoveries in relation to occupational diseases and in the establishment of procedures for their control. The general practitioner of medicine has long had knowledge of the diagnosis and treatment of these conditions, but he has had to depend to a considerable extent on the chemist, the toxicologist, the laboratory expert, the engineer, or the industrial hygienist for much of the recent progress in prevention and the hygiene of the industrial working environment.

4. *Adult Life—Positive Health Promotion and Sickness Prevention.*—While these four periods in the development of organized industrial health work are not mutually exclusive, the present stage of industrial health activities involves positive health promotion and education and sickness and accident prevention on a broad scale. Attention must be given not only to occupational injuries and diseases but also to the prevention and control of non-occupational sickness and accidents, with special reference to the common diseases of the upper respiratory tract, tuberculosis, syphilis, heart disease, diabetes, appendicitis, and arthritis, as well as so-called off-duty accidents in the home and on the public highway. In this complete development of the modern industrial health program the practitioner of medicine will have an increasingly important part to play.

The Physician in Industry

Industrial physicians may be classified into three groups based on the amount of time given to work, viz.: (a) those on full time, (b) those on part time, and (c) those on call for special emergency services.

The full-time industrial physician usually is a member of the company medical department staff on a salaried basis, with special training and experience in industrial medicine. He must assume duties not only as a consulting physician or surgeon but also more or less as the health officer of the company, applying all of the known

principles of preventive medicine and industrial hygiene to the employe group. Part-time physicians give shorter or longer periods of time to services in one or more company plants. They usually are paid a stated sum per week, month, or year by the company in question according to the amount of time given. In general, their activities are associated with physical examinations, case work, and special problems having to do with compensation and other medicolegal matters. Physicians on call serve only on special request. They and the part-time plant physicians are the usual community practitioners and specialists. Up to the present time most of the smaller industrial plants are served by these general practitioners, and industry is making more and more use of such medical knowledge and service. In no sense should the so-called industrial physician be a competitor of the general practitioner in the community. All members of the medical profession, including the general practitioners, the full-time and part-time industrial physicians, and the public health officers, should work together for the benefit of all concerned and for the better promotion of industrial health.

Without attempting to go into detail as to the functions or duties of the general practitioner in relation to industrial health, it may be stated that his chief obligations and opportunities are as follows:

1. To promote industrial health as an important function in the larger field of public health.
2. To maintain joint responsibilities to employers, employes, and official government agencies concerned with industrial health.
3. To recognize and report occupational diseases and all other diseases required by law to be reported.
4. To encourage management and labor to see the value of industrial health conservation.
5. To educate and advise employed persons regarding their health.
6. To make preëmployment or preplacement and other physical examinations that may be required and to assist in the follow-up of cases needing correction of impairments.
7. To guide employed individuals to adequate medical, surgical, or specialized treatment facilities where necessary.
8. To assist in matters pertaining to general sanitation of the plant and to have knowledge of the potentially toxic materials or disease-producing processes used in any organization that he may serve.
9. To have a general knowledge of employe and industrial relations and of personnel practices and facilities.
10. To be versed in the handling of traumatic surgical emergencies and in workmen's compensation laws.
11. To work in harmonious and ethical relations with fellow practitioners and industrial physicians.

The most essential requirement for the success of a program in the interest of war-time workers is a sympathetic coöperation between the private practitioners of medicine and surgery, the lay and medical leaders of industry and the various government agencies. It may be stated without much fear of contradiction that the general practitioner of medicine, whether he is giving a small amount of time directly to industrial work or serving industry indirectly as the private physician to employed persons, is potentially the most important unit in industrial health work. On him, at present, largely rests the success or failure of such work, particularly for the smaller industries. While much may be said in favor of the thesis that industrial health service is not a medical monopoly, it must be admitted that it would be more difficult to carry on successful industrial health work without the physician than without the other specialists who make up the so-called industrial health profession.

Industrial Health and the Medical Society

In conformity with the recent trend in several states, it is respectfully suggested that all state medical societies should create standing committees on industrial health and plan the scope of their activities in coöperation with the Council on Industrial Health of the American Medical Association. Moreover, in those counties made up of large industrial populations, the establishment of committees on industrial health in county medical societies should be encouraged. It is here that most of the important industrial health problems and services must be worked out in cooperation with local community agencies, public and private. It is of interest to note that the Minnesota State Medical Association has a Committee on Industrial Hygiene and Occupational Diseases; and the Hennepin County Medical Society, a Committee on Industrial Health. It thus would appear that the medical profession in Minnesota is all set to take its part in the development of a well-rounded industrial health program.

The Council on Industrial Health of the

American Medical Association, created in 1937, has developed a guide to committees on industrial health in state medical societies, which includes the following suggested objectives:

1. To train industry and labor to the value of industrial health conservation.
2. To develop a clear understanding of the proper scope and functions of industrial medicine and to clarify relationships between private and industrial practice.
3. To keep the medical profession informed about all accepted methods for reducing the frequency and severity of industrially induced disability.
4. To elevate medical relations under workmen's compensation.
5. To scrutinize all legislation affecting the health of industrial workers.
6. To improve relationships between medicine and insurance.
7. To establish working relationships with all agencies in the state interested in industrial health.
8. To arrange for the adoption of similar activities through coöperating committees in the medical societies of industrial counties.

To accomplish these objectives it has been recommended by the Council on Industrial Health that the personnel of committees include representation from:

1. Private practice.
2. Industrial medical practice.
3. Medical representation, if such exists, from each of the following:
   (a) State bureau of industrial hygiene.
   (b) State workmen's compensation agency.
   (c) University medical faculties in the state.
   (d) Industrial insurance companies.

Public Health Relations

Prior to 1936 there were in the United States only five state departments of health and two or three state departments of labor conducting industrial hygiene activities, and even these activities were of limited nature. As of 1942, a total of thirty-six state, four city,, two county and two territorial Industrial Hygiene Bureaus have been established, mostly in departments of health. Some of these are of recent creation and have only skeleton organizations. There is great need that these be strengthened as rapidly as possible as a part of our wartime industrial health program. Moreover, additional industrial hygiene units should be organized without delay in the remaining states, territories and local governments, particularly of the larger industrial cities. Many of these recent advances in public industrial hygiene activities have been due to the leadership of the Division of Industrial Hygiene of the United States Public Health Service, through fundamental research and its application; education; advice on organization; special preparation and loan of personnel and equipment; and technical consultation services.

Somewhat typical of the services rendered by a State Division of Industrial Hygiene are the following, now made available by this Division of the Minnesota State Department of Health:

1. To receive and investigate reports of occupational disease.
2. To promote more adequate medical services within industry, such as the employment of full-time or part-time physicians and nurses, the provision of properly equipped first aid rooms, and the maintenance of sickness records.
3. To encourage the use of ethical preëmployment and periodic physical examinations and, as a part of these examinations, the use of the routine serologic test for syphilis.
4. To confer with industrial physicians in regard to special problems or general industrial health programs.
5. To provide on request engineering personnel specially trained and equipped to make studies of plant environment, such as air analysis for toxic vapors, gases, and dust, to determine whether the working atmosphere is safe or otherwise and to make recommendations for the control of health hazards found.
6. To promote adult hygiene programs within industrial groups, such as the control of tuberculosis, syphilis, and other communicable or preventable diseases.
7. To prepare and disseminate information on various toxic materials and processes, and methods for their control.

As noted previously, it is particularly to be hoped that our present war program will result in more active coöperation between industrial medical departments, private practitioners of medicine and local and state Bureaus of Industrial Hygiene. One concrete achievement of such coördinated efforts might be a much needed national plan for standardized recording and reporting of industrial morbidity and mortality. Moreover, it would be of advantage to all concerned if a plan were developed in each state whereby the plant physician is invited to accompany the official of the state or local Bureau of Industrial Hygiene in his inspection of working conditions in the plant.

Educational Relations

One of the chief unmet needs in connection with the national war emergency, calls not only for more and better undergraduate instruction on industrial health in our medical schools, but also for the organization of short postgraduate courses in strategic training centers throughout the United States. One result of the marked advance in the development of Bureaus of Industrial Hygiene in state and local governments has been an increased demand for trained personnel which it has been difficult to meet. Many war-production industries also are finding it difficult to obtain the services of properly qualified medical personnel.

In a survey which I made in 1934, it was found that only thirteen out of eighty-five medical and public health schools in the United States and Canada gave separate courses on industrial hygiene or industrial medicine. Several medical schools included one or two lectures on this subject in their general course on preventive medicine and public health, while a majority of such schools gave no attention whatever to this important and growing subject. Thus, a wide range of practice in the teaching of industrial health exists at present among the various medical and public health schools. It is natural and reasonable to suppose that those schools associated with universities in the more populous urban and industrial centers will have more demand on the part of students and more adequate facilities for instruction on industrial health than will those located in rural and agricultural parts of the country; the further development of teaching and research on this subject in various institutions naturally must depend largely on such local conditions and requirements.

For those students who expect to become private practitioners of medicine and surgery but who eventually may give part time to industrial health work, it would seem desirable to furnish instruction in medical schools, preferably during the latter part of the course. For those students who expect to take up general public health work on a full-time basis or to specialize in industrial health service, separate courses should be available in graduate schools or schools of public health. For those students or lay business executives who wish to specialize or receive instruction in business or personnel administration, courses on industrial health adapted to the use of such students should be included in the curricula of university schools of business administration.

Field visits to industrial plants for inspections and surveys should be to the teaching of industrial medicine what hospital ward rounds are to the teaching of clinical medicine. Medical and public health schools which give instruction on this subject should cultivate the friendly cooperation of local industries in order to enhance their facilities for field training of students and research on industrial health.

Where possible, instruction on industrial health, including industrial medicine, industrial sanitation, industrial safety, industrial toxicology and other subjects, should be organized under one separate, independent department with a full-time professor, as coördinator and director, and with the necessary assistants. The head of the department should be a physician with training and experience in industrial health. In the larger universities he might also serve as the director or teacher of courses on this subject not only in the medical school, but also in public health, nursing, business or graduate schools. Detailed subject matter and methods of teaching industrial health must be based on local conditions, facilities and needs. Industrial health, including industrial medicine, will become what physicians and medical educators help the businessman and industrial worker to make it. In this connection, opportunities and responsibilities of educational institutions are unlimited.

Recent Educational Advances

While much remains to be done, some advances have been made in the teaching of industrial health during the past few years. A review made by the Council on Industrial Health of the American Medical Association in 1938 found that fifty-two medical schools reporting, averaged five hours of instruction on industrial health in their four-year curricula. A more recent study shows a further slight increase in the number of hours devoted to this subject. It is hoped that added impetus will be given by (a) the teaching syllabus prepared by the Council on Industrial Health, which has been authorized by the Council on Medical Education and Hospitals of the American Medical Association to take the initiative in such matters, and (b) the recently developed outline on the Teaching of Industrial Health, prepared jointly

by the Council and a Committee of the American Association of Industrial Physicians and Surgeons.

A few medical schools also recently have established short courses on industrial health. These have been organized either independently by the medical schools or in coöperation with local industries, the State Bureau of Industrial Health and other public agencies. One of the outstanding examples of postgraduate education on industrial health is that which was carried on last year through brief regional institutes in several Iowa communities, based on coöperative efforts between the State and County Medical Societies and the State Department of Health.

As of interest in the field of educational relations, was the creation in 1941 of a joint committee made up of representatives of (a) the American Association of Industrial Physicians and Surgeons and (b) the Section on Preventive and Industrial Medicine and Public Health of the American Medical Association to consider and possibly to draw up a plan for certifying industrial practitioners. Based on regulations governing the organization of certifying boards already laid down by the Council on Medical Education and Hospitals of the American Medical Association and the Advisory Board for Medical Specialties, it is hoped that eventually an American Board for Industrial Practice may be created and become operative.

Conclusions

In conclusion, the health and safety of wartime workers and of all workers during the important period of post-war adjustment will depend on the united efforts of (1) the workers themselves, individually and collectively; (2) industrial management and related local, state and national commerce, trade and manufacturers' groups; (3) the medical profession and allied professions of nursing and dentistry; (4) the public health and public safety professions, including official and voluntary administrators, engineers and laboratory specialists; and (5) the educational leaders of the United States.

A few of the fundamental objectives in a coordinated local wartime program might be:

1. To stimulate, as rapidly as possible, the evaluation of important hazards to health and safety, particularly in local war-production industries, and to make specific and practical recommendations to the managements for the elimination of any hazards encountered. This is not merely an academic suggestion, for plants holding government contracts must assure the federal government of working conditions "not hazardous or unsanitary, or dangerous to health and safety."

2. To develop community-wide interpretation and local medical education on industrial health.

3. To make provision for at least a minimum medical service in industries having government contracts. Such a service might include (a) physical examinations, (b) a well-organized system of referral for the correction of physical defects to be worked out with the coöperation of the local medical profession and community hospitals, and (c) an adequate system of records and reports.

4. To inaugurate specific contacts with local managements and workers, and to assist in providing medical, nursing, engineering, and laboratory personnel where needed.

In order to implement such a local wartime industrial health program, it is suggested that a joint coördinating committee be set up to include one representative from each of the following groups: (1) employes; (2) organized labor; (3) industrial management; (4) Chamber of Commerce or Manufacturers' Association; (5) County Medical Society; (6) Local Dental Society; (7) Local Nursing Association; (8) Local Health Department; (9) Local Safety Council; and (10) Local Educational Institution. Additional funds or personnel which might be required should be sought from available local, state and federal sources.

Quoting the Federal Security Administrator, "of all health and welfare services, industrial hygiene can make—*must* make—the most direct contribution to winning the war. As in modern warfare, the strategy of industrial health service is teamwork." The State of Minnesota and Hennepin County are to be congratulated on the medical, public health and industrial leadership which they have available to promote active teamwork for the health and safety of wartime workers!

LEGAL ASPECTS OF FIRST AID BY LAY PEOPLE

C. J. POTTHOFF, M.D., Associate Professor of Biological Sciences and Preventive Medicine, University of Minnesota
and
PAUL CARROLL, Judge, District Court
Minneapolis, Minnesota

IN first aid work, as in medical work otherwise, there is an ever present possibility of encountering legal difficulties. It is estimated that 15,000,000 people will receive first aid training during 1942. Many of these people are assuming posts in Civilian Defense, and are expected to perform first aid in the case of a catastrophe. The possibility of encountering legal difficulties seems to loom as important to them. They wonder about the obligations their positions entail and the risks they assume. Inasmuch as physicians often teach these classes and will in a catastrophe have lay first aiders as assistants, the questions are often directed at them.

The questions most commonly asked by them are considered here. Answers given pertain to first aid in Minnesota, and should not be regarded as necessarily applicable in other states. These answers are not official, but are compiled from sources regarded as highly reliable. These answers are not intended to cover any problems beyond those of strict first aid requirements.

Q. In the case of an accident, is a bystander required by law to render first aid?

This question, so often asked, cannot be accurately answered by a simple statement. There is no Minnesota law at present which specifically requires a casual bystander to render assistance in the case of an accident. But laws have been passed and court decisions have been made which do throw responsibility upon certain people, by virtue of their positions, or because of the circumstances, to render assistance. It is difficult to predict, for many of the hypothetical cases advanced by first aid class members, whether a court might hold that a bystander has a responsibility to help the injured. Let us consider some of the situations wherein there appears to be a responsibility.

A legally qualified physician or nurse employed to render medical or nursing service should under specified or implied terms of a contract render first aid.

A school teacher should, according to various decisions, care reasonably for a stricken child under the teacher's supervision. She is "acting in the place of the parent." The teacher is not only justified in acting to protect the safety of those entrusted to her care, but she also has responsibilities in acting prudently and reasonably to safeguard these children. The teacher is not only the representative of the parent in the schoolroom, but the courts have also recognized that the teacher has certain jurisdiction over the streets and adjacent property while the child is on the way to or from the school. Though requiring teachers to care "reasonably," the courts have not up to this time demanded that teachers in the mass take formal courses in first aid. It is difficult to state what a jury would regard as reasonable care in any specific case where the teacher is not required to study first aid; but surely she should not let a stricken child lie unattended. No case of this kind appears to have arisen in Minnesota, but it is probable that Minnesota teachers should care reasonably for stricken children.

Inasmuch as bus drivers for Minnesota schools are required to study first aid and to carry some equipment, a jury would probably hold that they likewise must render first aid to children under their control.

The driver of a car which participates in an accident is required to assist injured persons. This is true even though the driver was not responsible for the injury or accident.

What, then, of the obligation of a Civilian Defense worker, trained in first aid? There is at present no specific legislation pertaining to his responsibilities. Nevertheless, it appears dangerous for him to assume that he would not be held, in a test case, to have responsibilities for rendering assistance.

It is anticipated that specific legislation will be passed defining the rights, obligations and duties of all the Civilian Defense workers. Perhaps legislation under the present emergency will throw far more responsibility upon all of us to assist the injured in a catastrophe. New conditions re-

quire new rules, and the law is not unchanging. Certain it is that any person should not be hesitant in doing his best to help the injured. The law and all people look with favor upon those who do humanitarian acts.

Q. Suppose a bystander at the scene of an accident renders assistance. Can he be held liable for injury suffered due to incorrect care given?

A. If the first aider uses reasonable care and judgment, he would not be liable for any injury or damage. But if he performed his acts negligently, he could be held to respond in damages.

What degree of care must he exercise in order not to be negligent? He would probably be required to exercise such care as a reasonably prudent person should exercise, considering all the circumstances such as the injury itself, the entire situation of the emergency, the training of the first aider, etc. It is probable that a jury might expect a higher standard of care from a trained first aider than from an untrained person. It is probable that a physician, giving first aid only and as a volunteer, and though not intending to charge for his services would be held to the same degree of care as if he were treating his own patient. Under ordinary circumstances a doctor is bound to exercise such care, skill, and diligence as is usually exercised by physicians and surgeons in good standing of the same school of practice.

Q. If a person in rendering first aid initiates action resulting in expenses for care, can he under any circumstances be held responsible for the expense payment if the injured person refuses to pay?

A. Yes, the first aider might under certain circumstances be held to have contracted for such service as that of medical or hospital care or ambulance service. Even though the victim gives the first aider permission to undertake procedures involving expense, the latter should explain in advance when ordering service for the victim that he is acting only as a volunteer, and is not otherwise related to nor interested in the party concerned.

Q. Must an accident victim be left lying immediately at the accident scene until authorities such as the police or a coroner have arrived?

A. When the victim is living, the first aider may at once give him such attention as reasonably seems indicated for the preservation of life or limb. He should of course attempt to gain a clear picture of the whole accident scene and history.

If the victim is dead, the body should not, strictly speaking, be moved. Neither should the possessions on or about the body be moved. When strict adherence to the letter of the law is violated because of the dictates of common sense, the authorities seem to accept the removal as justifiable. Thus it may seem sensible to move a body a few feet from a highway carrying heavy traffic or from a crowded theater-lobby. When a crime is suspected, one should be especially reluctant to move the body.

Q. What is the law pertaining to notification of police authorities in the case of an accident?

A. In all cases in which a crime is suspected, the sheriff or some other police officer should be promptly informed of the facts.

The 1938 Supplement to Mason's Minnesota Statutes of 1927 states: "The driver of a vehicle involved in an accident resulting in injury to or death of any person shall . . . by the quickest means of communication give notice of such accident to the local police department if such accident occurs within a municipality; otherwise he shall in like manner give notice to the office of the sheriff of the county." And further: "The driver of a vehicle involved in an accident resulting in injury to or death of any person or total property damage to an apparent extent of $50.00 or more shall, within 24 hours, forward a written report of such accident to the commissioner." Special report forms are available usually from local police officers. Accident reports to the highway commissioner should be on report forms, if they are available. It is wise for all to study a blank form in order that they may gather the necessary information should they be involved in an accident.

When a driver collides with and damages an unattended vehicle, he is required to locate and notify the owner or to report the accident to a police officer. If he damages fixtures which are legally on or adjacent to a highway, he is required to take reasonable steps to notify the owner or person who is in charge of the property. A driver involved in a traffic accident is required, in general, to give his name, address, vehicle registration number, and show his driver's li-

cense if requested by the driver of the other vehicle or the owner of damaged property.

Physicians are required to report all cases in which gunshot wounds are treated. Garages and repair shops are required to report to local police and the highway commissioner when incoming motor vehicles give evidence of having been struck by a bullet. Coroners are required to report to the highway commissioner all cases of death resulting from motor vehicle accident.

Q. Under what circumstances should the coroner be notified?

A. The coroner is concerned in certain cases of death. Section 957-2 of Mason's Minnesota Statutes of 1927 provides: "It shall be unlawful for any person other than the coroner to issue a certificate of death in any of the following cases to wit: violent or mysterious death including suspected homicides." Section 946 provides: "Coroners shall hold inquests upon the dead bodies of such persons only as are supposed to have come to their death by violence, and not when the death is believed to have been and was evidently occasioned by casualty." Thus the coroner is allowed some discretion in deciding when inquest shall be held. Coroners appear to interpret the rule above as indicating inquest shall be held if a crime is suspected, but not if the death is accidental, without suspicion of crime. In some localities in the state, local legislation clarifies their duty regarding inquest.

The Attorney General has ruled that in the case of accidental death by drowning, where no crime or violence is suspected: "It is probably best to have a coroner sign death certificate, and in absence of coroner, a private physician called upon finding dead body, could not make a certificate because he was not in attendance at time of death."

The Hennepin County coroner accordingly lists for cases subject to his attention (1) mysterious deaths, (2) accidental deaths, (3) suicides, (4) homicides, and cases where the latter three are suspected. The coroner signs the death certificates in these cases. When doubt exists concerning whether the coroner should be called, he may usually be telephoned and given opportunity to decide whether he should come to the scene of the sudden death. The first aider should be aware that in cases of sudden death it may be necessary to notify the coroner, but ordinarily decision to call him may be made by others who may be at hand—police, physician. It is difficult even for a physician to decide sometimes, for after all, under what circumstances is a death mysterious or accidental?

Q. Suppose a seriously injured victim refuses an offer of assistance extended by a first aider. Shall assistance be given anyhow?

A. The problem has many aspects. A person, even though mentally competent, may refuse to allow a first aider to splint a fracture. A refusal by a competent person should be respected; otherwise serious legal difficulties may be encountered. It is unlikely that a victim will refuse help if emergency measures for life-saving are necessary, unless the case is that of a would-be suicide. It is legally proper to thwart attempts at suicide.

The difficulty may arise especially with children, disoriented aged, or drunken people. Children may refuse tendered offers of assistance because they fear pain. Judicious handling of the case ordinarily will solve the problem here. If, despite all efforts, the child still refuses an offer to help, in the absence of responsible relatives, the first aider will probably be upheld if he carries out emergency, life-saving measures. He should use caution as indicated for the cases of the disoriented.

Where cases involving first aid for the disoriented are brought into court, the matter becomes a question of fact. The cases may include the drunken, the aged disoriented, the concussion victim, others suffering from a psychosis. Society looks with favor upon those who attempt to relieve suffering and save life. In case of the bombing of a building, when prudence dictates that the building should be evacuated, it may appear necessary to remove such people even against their desires. Jurors would doubtless be very considerate in such cases. No more restraint nor any more treatment should be attempted than is fully justifiable as emergency action. Ordinances will probably be passed defining rights of Civilian Defense workers in this matter. The first aider who exercises due restraint and confines himself to emergency life-saving and limb-conserving measures in the case of a disoriented person who refuses an offer to help will probably not be penalized by a jury. Such court action is unlikely to occur, of course,

and tactful handling of the situation at the accident scene will lessen minimal possibilities of encountering legal difficulties here.

Experience indicates that in addition to questions above considered, students often ask questions pertaining to traffic regulations. It is surprising how few people know the simplest of the traffic regulations, such as those pertaining to parking and to right-of-way. Studies at the University of Minnesota show that less than one per cent of the students tested know what the Minnesota Traffic Code says concerning signaling in traffic. A copy of the Code may be obtained from the State Highway Department. First Aid classes of course devote attention to accident prevention. Information concerning and stimulation to study the traffic rules has a place in these classes. The informed student has better personal protection. He is better able to get a clear picture of the accident scene when he knows the regulations.

Particular acknowledgment is made for many helpful suggestions from A. J. Lobb, LL.B., of The Mayo Clinic.

References

1. Lobb, A. J.: Medicolegal aspects of accidents. Proc. Staff Meetings Mayo Clinic, 15:750-752, (Nov. 20) 1940.
2. Minnesota State Highway Department: Traffic Code. Saint Paul: The Department.

THE PREVENTION OF AUTOMOBILE ACCIDENTS

MAURICE N. WALSH, M.D.
Rochester, Minnesota

WE ARE living in the age of preventive medicine. The basic philosophy which underlies more and more of our medical practice of today is that it is far better to prevent a disease than to attempt to treat it after it has occurred. Naturally, this is not always possible, but whenever it can be done it is definitely the duty of the physician to resort to all possible measures to prevent the occurrence and spread of disease and to protect and save human life under all circumstances.

A Neglected Medical Problem

But let us look into the situation in regard to automobile accidents. After an accident has occurred it is the responsibility of the physician to do what he can for the injured person. This is often pitiably little. The number of maimed and crippled minds and bodies seen daily by physicians in this country as the result of automobile accidents is enormous. The death toll of approximately 40,000 lives in 1941 from automobile accidents in the United States is equivalent to the total loss to the country of the entire population of a small city of men, women and children in one year, and certainly far exceeds the mortality from most diseases. Up to the present, however, the physician has concerned himself very little with the preventive phase of the traffic problem. It may be asked, "Why not leave this to the police?" in whose hands this problem has rested for many years. The answer is that in spite of all the police can do, traffic accidents continue to account for thousands of valuable lives each year and to cause crippling and maiming of many more thousands of persons. Since physicians are entrusted with the responsibility of caring for the patient after the accident, it seems logical that they should have some part in the prevention of these accidents. It must be remembered that physicians are almost the only group remaining in the world today whose sole interest is the saving and protecting of human life.

A Serious Traffic Problem

An impartial review of the traffic problem in this country demonstrates the fact that *something is seriously wrong with the system of traffic control* and it is not difficult to point out what the deficiency is: *we lack a national unified method of traffic control.* Because of this fact evils have multiplied, until today there is no hope of controlling this great problem without the passage of uniform national traffic laws and regulations, effectively enforced. Such measures will make it necessary that periodic medical examination of drivers, compulsory examination of automobiles

From the Section on Neurology, The Mayo Clinic, Rochester, Minnesota.

TABLE I. COMPARISON OF REGULATION OF AVIATION AND AUTOMOBILE TRAFFIC

Aviation	*Automobile*
1. Uniform national system of laws	Variable local system of laws
2. Enforcement of laws by competent, well-trained national officers	Enforcement of laws by variably trained local officers
3. Careful compulsory periodic medical examination of pilots	No medical examination for drivers' license in most states
4. Careful ground school study, including traffic laws of the air, with compulsory examination for licensure	Traffic schools in relatively few localities with inadequate examination for licensure
5. At least 35 hours of flight training both dual and solo with flight test required for licensure	Usually no driving school or driving test necessary for licensure
6. Compulsory licensure of all aircraft after careful periodic examination	Totally inadequate examination of automobiles, variably enforced
7. Strict enforcement of laws prohibiting flying while pilot is intoxicated	Lax enforcement of laws prohibiting driving while driver is intoxicated
8. Careful planning for future development of air traffic by Civil Aeronautics Board	Lack of any centralized authority for effective future planning
9. No local interference with law enforcement	Much local interference with law enforcement

and trucks, compulsory instruction in traffic laws and in driving, and impartial enforcement of the law by well-trained officers, be carried out.

The Lessons of Air Traffic Regulation

Fortunately, we can turn to aviation for a demonstration of how a national system of traffic regulation can be established. Few people in this country realize what an excellent system of traffic control has been set up for aviation in the United States. Air traffic was not always so well-controlled as it is now. In the barnstorming era, not so many years ago, air traffic was as chaotic as is ground traffic today. Great credit is due the Civil Aeronautics Authority for its excellent work in bringing into being the best system of air traffic control in the world. In the United States so much wisdom has been incorporated into traffic laws of the air that it seems worthwhile to compare them with the condition obtaining in traffic control on the ground (Table I).

Uniform System of Laws.—The greatest advantage which air traffic enjoys is that of a uniform national system of laws embodied in the Civil Air Regulations.* With minor exceptions, flying is done in the same manner in all parts of this country. In certain areas local conditions require minor modifications of these laws, but as little modification as possible is done. Automobile traffic, on the other hand, suffers from the fatal handicap of being regulated by variable local laws. It is necessary for a driver to travel only a short distance before he reaches an area in which the traffic laws may be very different from those of his own region. The placement of traffic lights, to provide a concrete example, varies markedly from one locality to the next. Consequently, it is easy for the motorist to become confused and to break laws which he never knew existed. In some localities absurd and even ridiculous traffic laws, proper enforcement of which is impossible, are in existence. Too much cannot be said against the dangerous practice of attempting to enforce variable local traffic laws, many of which are unwisely conceived. The advantages of a national system of traffic regulation should be evident to everyone. Enough experience has been gained by studies of traffic to permit institution of a wise system of national laws which could regulate traffic most satisfactorily, with minor local variations as necessary.

Careful Medical Examinations.—To secure any type of license to pilot an airplane, the applicant must pass a careful medical examination designed to demonstrate his physical fitness for handling a high speed machine safely, and this examination must be repeated every six months or every year, depending on the type of license the pilot holds. On the other hand, in most states the person who wishes to obtain a driver's license is not required to undergo a medical examination of any kind, and every physician sees patients who have serious physical handicaps, such as poor vision, epileptiform convulsions, loss of limbs or other serious defects, but who nevertheless drive constantly and frequently are involved in accidents. The question of whether such handicapped persons, who obviously are unfit to operate a motor vehicle, can be allowed to continue to drive automobiles and to endanger population is a most serious one. It is very definitely the duty of the physician to take measures

*Civil Air Regulations, Government Printing Office, Washington, D. C.

to end this danger by demanding the compulsory periodic physical examination of all applicants for drivers' licenses and to insist that this be made a national law, affecting all drivers in the United States.

Enforcement and Personnel.—Traffic laws of the air are enforced by competent, nationally trained officers; that is, by officials of the Civil Aeronautics Board. These men are universally respected and their decisions are so fair and honest that they are rarely protested. They have contributed immeasurably to the increasing safety of aviation and to the saving of human lives. On the other hand, enforcement of traffic laws in automobile traffic is carried out by variously trained local officers. In certain regions, such as large cities, they may be very well-trained indeed. In other areas, however, they often receive no training whatever. At best they are entrusted with the enforcement of many types of laws in addition to traffic laws, and an unnecessary burden is sometimes put upon them by the necessity of attempting to enforce obsurd or even harmful local regulations. It is not my intention to disparage the excellent work of traffic control officials in certain parts of this country, where their devotion to duty has resulted in the saving of many human lives. It is simply desired to point out that their efficiency could be increased if one, unified control with a national system of laws were operative.

Technical Qualifications Demanded.—In aviation, careful study of the traffic laws of the air, together with some knowledge of aerodynamics, meteorology and maintenance of airplanes as disclosed by a compulsory written examination, is necessary for licensure of a pilot. In respect to ground traffic, however, schools at which prospective drivers are taught traffic rules exist in relatively few communities and in most places a driver's license can be obtained after a totally inadequate examination. In many states, the payment of a fee is all that is required for the obtaining of a license to drive an automobile, and ignorance of traffic laws is so dangerously widespread in all states that much education will be required before this situation is improved. Yet the necessity for thorough knowledge of traffic laws is very great, since in automobile traffic, as in air traffic, the human error usually is responsible for accidents rather than structural failure of the vehicle. It cannot be expected that the loss of life from automobile accidents will be reduced unless the driver is required to know thoroughly the traffic laws that he is expected to follow.

To obtain a private airplane pilot's license it is necessary that the students present proof that dual flying (that is, flying with an instructor), together with at least thirty-five hours of solo flight has been carried out. In most courses of instruction, the number of hours of flying with an instructor usually averages about twenty, and a rather difficult flight test (which frequently is failed), conducted by an inspector of the Civil Aeronautics Board, is required for licensure. To obtain a commercial or a transport pilot's license much more experience is required in order to pass the difficult test. In ground traffic, on the other hand, no driving school or driving test usually is necessary for licensure. In a few communities, a driving test is required before a license to drive an automobile can be obtained. Simple observation in any part of this country will convince anyone of the fact that the lack of knowledge of how to drive an automobile properly is widespread. Dangerous methods of driving are so common as to require almost no special mention. Most people do not drive badly because they maliciously disregard laws, but because no one ever taught them how to drive properly. Again, the need is so obvious that no further comment need be made.

Licensure and Inspection of Vehicles.—In aviation traffic compulsory licensure of all aircraft, after careful periodic examination, is required. It is now against the law to fly an unlicensed airplane in any part of this country. Such examination, conducted by inspectors of the Civil Aeronautics Board, has saved countless lives. Structural defects not infrequently are encountered and must be corrected before flying can be done. Experience in aviation has shown that the pilot cannot be trusted to take proper care of his airplane, and consequently, federal inspection was wisely provided for and required. In automobile traffic, on the other hand, there is totally inadequate examination of automobiles, and provisions for such examinations are variably enforced. In most localities there is no inspection whatever. In certain localities periodic inspection of brakes is made, and in certain others various parts of the

vehicle are inspected. Again, the need for a uniform national law requiring strict periodic inspection is evident. There are upon the roads of the United States a large number of automobiles which are totally unfit for driving, and represent dangers to human life.

Personal Restrictions; Evasion of Punishment.—In air traffic there is strict enforcement of the law prohibiting flying while the pilot is intoxicated with alcohol or with some drug. There are laws prohibiting driving an automobile while the driver is intoxicated, but it is common knowledge that these laws frequently are disregarded and that they are enforced with laxity. It has been well stated that a drunken driver is literally "dynamite on wheels." The effect of even a comparatively small concentration of alcohol in the blood stream is markedly to impair the judgment and efficiency of the driver, and this fact is well established. Could drunken driving be eliminated, the accident rate would immediately decrease sharply. Again it is true that in certain localities strict enforcement of these laws is the rule, but in many localities extremely lax enforcement is common. In aviation there is no local interference with law enforcement, such as so frequently occurs in automobile traffic. The evil of "fixing automobile traffic tickets" unfortunately is widespread. It is common knowledge that federal laws cannot be "fixed," whereas local laws are affected by this evil. Good laws are of no avail if the traffic officer is prohibited from doing his duty by the "fixing" of a traffic ticket.

Planning for the Future.—Finally, the Civil Aeronautics Authority acts as a national agency to plan for the future development of aviation and to regulate air traffic. The high standard which has been reached by civil aviation in the United States is due directly to the wisdom with which this body has performed its function and to the wise leadership of the Honorable Robert Hinckley, assistant secretary of commerce for air. In automobile traffic, on the other hand, there is a lack of any centralized authority for regulation and future planning, and this lack has resulted in many evils. As one example of what may be accomplished in automobile traffic by such a body, I may point out the vital necessity in this country for more two-lane roads, with a small island in the center, to prevent the hazard of head-on collisions which unfortunately are so common on present highways. Such highways have been built in a few localities, but it is extremely important that many more be established. These roads also would be of great military importance. Close coöperation should obtain between the Civil Aeronautics Board and the group in control of automobile traffic, so that landing strips will be placed along highways and so that certain areas of main highways will run in the direction of the prevailing winds at stated intervals, as has been the case in Germany for several years. A centralized Civil Automobile Authority could carry out many other important measures to aid not only in the saving of lives but also in national defense. An assistant secretary of commerce for automobile traffic, which is certainly of equal importance to air traffic, should be at the head of such a program. In Table II will be found certain recommendations for the improvement of ground traffic control in the United States.

TABLE II. RECOMMENDED MEASURES FOR REDUCTION OF AUTOMOBILE ACCIDENTS

1. Uniform national system of traffic laws.
2. Enforcement of laws by competent well-trained officers.
3. Compulsory yearly medical examination for licensure.
4. Traffic school study with examination in traffic laws for licensure.
5. Driving instruction with driving test for licensure.
6. Compulsory periodic examination of all motor vehicles.
7. Strict enforcement of laws prohibiting driving while driver is intoxicated, with severe penalties obligatory.
8. Creation of post of assistant secretary of commerce for ground motor traffic, with a Civil Automobile Authority to plan and direct future development.

Comment and Conclusions

We cannot do better than to follow the lead which aviation has so well set. Better traffic control is imperative and is the only method by which the number of automobile accidents can be reduced. Appeals to sentiment will reach only those persons who in most cases are already exercising due caution in driving. They will not reach those who are responsible for most accidents. Experience has shown that appeals to sentiment cannot be relied on to save human

lives. *There is no substitute for wise regulation and efficient law enforcement.* It need not be feared that liberty would be lost by this method and it cannot be denied that many lives would be saved thereby. The difficulty of establishing a national system of laws is very great, but the difficulty need not deter us. In a time of national emergency, when every life is valuable to our country it is the responsibility of physicians to take the steps necessary to secure those measures which will result in diminishing the enormous death rate from automobile accidents. We no longer can afford to be careless of the lives of our citizens. The recommendation by medical societies and other organizations of some such national system of laws, as has been mentioned herein, would carry great weight and this is the only method by which this can be accomplished. It is our duty then as physicians to demand that a national system of laws be quickly framed and adopted, in order that the lives of thousands of our fellow citizens may be safeguarded, and that mutilation and death from avoidable automobile accidents be eliminated.

MECHANISM OF UVEITIS

ERLING W. HANSEN, M.D.
Minneapolis, Minnesota

DURING the past quarter of a century the etiology and method of development of inflammations of the uveal tract have interested many observers and our understanding of the nature of uveitis has been greatly enlarged. It is less than thirty years since Billings emphasized the importance of focal infections in eye diseases. The following year, 1913, the section on Ophthalmology of the International Medical Congress in London discussed the "Pathogenesis of Chronic Uveitis, Excluding Syphilitic, Tuberculous and Sympathetic Cases." De Schweinitz at that time gave it as his opinion that every case of uveitis is of septic or toxic origin. There was an awakened interest in the subject and among others, Rosenow, in 1915,[10] and Irons and Brown, in 1916,[8] reported valuable experimental work on streptococcal infections. Benedict[1] with Rosenow[2] and some of his co-workers contributed valuable experimental and clinical evidence. Alan Woods[17] and his associates have done a tremendous amount of work on all phases of the problem.

It is interesting to note that in the older textbooks, syphilis is given as the major cause of uveal inflammations. In Vienna and some of the other German schools, it has been taught for some time that the predominant cause is tuberculosis. In our own country and in England, focal infection has been accepted as the underlying cause of most cases. Older theories of auto-intoxication, menstrual disturbances *per se*, and some other toxemias, except as they affect the general health and resistance, have been pretty generally discarded.

The causation of some forms of uveitis is so relatively evident that it is not necessary to discuss it in detail. We refer first to injuries in which infection is carried into the eye from without, excepting the development of sympathetic ophthalmia, which we will discuss later. Also there are those patent cases of septic choroiditis, endophthalmitis occurring with a general septicemia, or with severe systemic infection occasionally seen in acute exanthematous diseases. Lastly, we have those cases in which there is a patent tubercle in the choroid or iris, or a syphilitic nodule, both of which quite evidently come from deposit of the infecting organism carried in the blood.

In an earlier paper[7] we tried to convince ourselves that there were some distinguishing characteristics of iritis caused by various etiological factors. The more cases that one sees, the more one is convinced that clinically it is difficult, if not impossible, to differentiate. We are speaking now of the general run of acute and/or recurrent cases of uveitis. There is a marked similarity clinically in cases where the etiological factors may be widely divergent. This naturally brings up the question of how infection with syphilis, tuberculosis, gonorrhea or from such isolated foci

Presidential address delivered before the Minnesota Academy of Ophthalmology and Otolaryngology, October 10, 1941.

as peri-dental tissues, tonsils, prostate, cervix, etc., or other remote factors cause this picture.

Duke-Elder[5] says:

> . . . Inflammatory lesion in the eye could be excited in one of three ways.
>
> 1. By direct organismal infection, the micro-organism being liberated into the bloodstream and finding lodgment in the eye.
>
> 2. By systemic intoxication, the toxins derived from micro-organisms (either exotoxins, liberated by bacteria, or endotoxins released by autolysis of dead micro-organisms) finding their way to the eye by the blood-stream.
>
> 3. An allergic sensitization may occur, due to the liberation of foreign protein at the site of infection, the proteins in question being derived from the invading organism itself or elaborated in the reaction between it and the infected tissues.

That there is actual invasion of the uveal tissues by infecting organisms carried in the blood, we may not doubt. The experimental work already spoken of and much more of which nothing may be said here, has proven this conclusively. There are, however, many times as many people who have infections in whom no uveitis develops, as there are those who have it. Rosenow[11] spent much time in the study of selective action of bacteria for certain tissues. This elective localization was shown to be true in the case of experimental animals, using infective material from patients in whom iritis was present. It seemed that both culturally and experimentally the organisms tended to grow in media or in tissues where the oxygen tension was similar to that in the case from which the organisms were derived. Many bacteriologists and pathologists have failed to agree with Rosenow on his theory. The fact remains that organisms were recovered from experimental animals with iritis and the process repeated from animal to animal.

In addition to bacterial invasion viruses in herpes, both simplex and zoster, apparently can produce uveal inflammation. A specially virulent form of uveitis, Harada's disease, presumably is caused by a virus. In 1937[6] Jonas Friedenwald reported a severe case of bilateral uveitis, retinitis, and optic neuritis in a young woman in whom careful study did not reveal any of the usual etiological factors. Subsequent animal inoculation of spinal fluid from the patient revealed a filter passing agent which produced lesions in the eyes of rabbits, dogs and cats, which were similar to those of the original case. Mice seemed to be resistant to the infection and rats and guinea pigs showed relatively minor reactions. This is only one case, but knowing the caliber of the observer, and noting the extremely complete study of the case and the thoroughness of the animal experimentation, it seems only logical to conclude that in addition to micro-organisms, filterable viruses can also cause severe eye inflammations, endogenously.

With respect to Duke-Elder's second group, Alan Woods,[16] following up the earlier work done by Guillery in Germany on ferment-producing bacteria, produced uveitis experimentally with products of cultures from B. prodigiosis. Guillery and Woods' work was done by intravenous injection. Brown[3] injected intra-ocularly streptococcus toxin with resultant uveitis. Of the more recent reports Siniscal,[13] working with material from dental foci, was not able to produce uveitis in rabbits, by introduction of the toxins from culture of this mixed bacterial group, while he could from the organisms themselves, both on intra-ocular and intravenous injection. The toxins were not introduced intra-ocularly.

Direct invasion certainly occurs in a percentage of cases of uveitis, whether it be bacteria, filterable virus or toxic products of bacteria. This undoubtedly accounts for some of the acute cases. When we consider the much larger number of patients, with infections known to produce uveitis, we may well wonder why more people do not develop trouble. Immune reactions undoubtedly account for many eyes being saved. We may well ask ourselves, however, why, except for the purulent endophthalmitis sometimes seen with overwhelming infections, we do not see more of the common run of uveal involvement in these cases?

Few eye complications develop in frank cases of pulmonary tuberculosis. They are much more often seen in healed patients, and more especially where hilus glands are about the only demonstrable evidence of infection, aside from positive skin tests. Acute iridocyclitis is seldom seen in acute specific urethritis; much more commonly in chronic urethritis or prostatitis. Experimental studies made by Swift and Derrick[4] and by Schultz and Swift[12] have shown that the tissues of the eye could be sensitized more readily by repeated small inoculations or better yet by leaving an agar implant in the tissues, than by large injections of infecting agents.

There must be another factor which enters into the mechanism of uveitis. In the present state of our knowledge this seems to be the third factor of which Duke-Elder speaks, namely tissue sensitivity by whatever name we wish to call it. While immunity saves, her evil half-sister, allergy, destroys. There has been a great deal of experimental work, in addition to that already mentioned, which has proven that almost all tissues in the eye can be sensitized to foreign substances, from serum to bacteria of various kinds and their products. The initial reactions are seldom severe but subsequent injection, either in the eye or systemically may set up violent reaction in the tissues. An interesting and instructive case which parallels some of the experimental work was reported in 1939 by Muncaster and Allen.[9] The patient, a teacher, aged thirty-one, was given a routine tuberculin test. There was no positive skin reaction to the initial small dose. A second larger dose gave a strongly positive reaction, as well as lighting up the first area. First the left eye, followed in a few hours by the right, developed classical symptoms of irido-cyclitis, edematous corneas, cloudy vitreous and, what was seen later, after the media cleared, round spots of grey exudate near the disc in each eye.

Another very interesting case is that of Theodore and Lewson,[14] which parallels some of the experimental work done with foreign sera. The patient, a man, aged forty, developed bilateral iritis together with other classical symptoms of serum sickness, after being given four doses of type I antipneumococcus serum. There was only slight pain, moderate circumcorneal injection, but much heavy fluffy white exudate in the anterior chamber and over the posterior corneal surface. Clearing was rapid; no chorioidal foci could be seen after recovery, which was complete.

These are to me striking examples of what we have been talking about, the sensitization of uveal tissue, which may not be of great importance in respect to treatment in the present light of our knowledge, but a better understanding of the processes with which we are dealing eventually brings a better mode of attack. Incidentally, the question of sensitization of ocular tissues may become very important from a mecido-legal standpoint and actually have twice in our own practice, within the past year, one a case of recurrent iritis resulting in Iris Bombé and secondary glaucoma, and the other, parenchymatous keratitis.

One of the severest forms of uveitis, sometimes called malignant uveitis, is the type that has been designated sympathetic ophthalmia. From Elschnig's work on uveal pigment which he showed could act as an antigen and which could produce an anaphylaxis in the species from which it was derived of in a different species of animal, came his theory of an allergic basis for sympathetic ophthalmitis. Woods[17] confirmed Elschnig's work, and added much more valuable information experimentally and clinically. He found a positive complement fixation test to uveal pigment in patients who had suffered injury to the uveal tract and had healed without sympathetic inflammation. This was absent in those who developed sympathetic ophthalmia or protracted inflammations. Intradermal tests were positive in the sympathetic cases and negative in normal individuals and some with other eye inflammations. Friedenwald has done more work on the pathologic phase of this condition and while the whole picture is still not quite clear, it, also, is coming clearer.

Endophthalmitis phaco-anaphylactica is the name given by Verhoeff to the severe inflammations in the eye from lens substance. These occur in some individuals where lens substance has been left in the eye at operation for cataract or in needling operations, especially the second eye. Uhlenhuth had shown that lens protein was organ specific, and Verhoeff and Lemoine[15] found that these cases had a positive reaction to intradermal injection of lens antigen, another evidence of allergic reaction in the eye.

Summary

1. Uveitis is due to actual invasion of organisms as evidenced by development of tubercles in the chorioid, ciliary body and iris, syphilitic nodules, or in free pus formation in septicemia, et cetera. Filterable viruses probably also set up direct inflammation of uveal tissue.

2. There is possibly involvement by endo- or exotoxins produced by bacteria, causing direct irritation.

3. Probably most important is the production of a hypersensitivity of uveal tissue to allergens of various types, whether of virus, bacterial proteins, uveal pigment, lens substance and/or other proteins.

References

1. Benedict, W. L.: The character of iritis caused by focal infection. Arch. Ophth., 50:560, 1921.
2. Benedict, W. L., Van Lackum, W. H., and Nickel, A. C.: The pelvic organs as foci of infection in inflammatory diseases of the eye. Arch. Ophth., 56:116, 1927.
3. Brown, A. L.: Experimental production of uveitis. Am. Jour. Ophth., 15:19, 1932.
4. Derick, C. L., and Swift, H. D.: Hyperergic tissue response to non-hemolytic streptococci. Proc. Soc. Exp. Biol. and Med., 25:224, 1928.
5. Duke-Elder: Textbook of Ophthalmology, Vol. II, St. Louis; C. V. Mosby Co., 1938.
6. Friedenwald, Jonas S., and McKee, Clara M.: Filter passing agent as a cause of endophthalmitis. Trans. Am. Acad. Ophth. and Otol., 42:191, 1937.
7. Hansen, Erling W.: The etiology of iritis and its relation to clinical diagnosis. Journal Lancet, 46:217-221, (May) 1926.
8. Irons, E. E., Brown, E. V. L., and Nadler, W. H.: The localization of streptococci in the eye; a study of experimental iridocyclitis in rabbits. Jour. Infect. Dis., 18:315, 1916.
9. Muncaster, S. B., and Allen, H. E.: Bilateral uveitis and retinal periarteritis as a focal reaction to the tuberculin test. Arch. Ophth., 21:509, 1939.
10. Rosenow, E. C.: Iritis and other ocular lesions on intravenous injection of streptococci. Jour. Infect. Dis., 17:403, 1915.
11. Rosenow, Edward C.: Focal infection and elective localization in the pathogenesis of diseases of the eye. Am. Otol., Rhinol. and Laryngol., 36:883-895, 1927.
12. Schultz, M. P., and Swift, H. F.: Reaction of rabbits to streptococci. Jour. Exp. Med., 4:591, 1932.
13. Siniscal, Arthur Alfred: Iritis due to bacteria and bacterial toxins associated with dental sepsis. Arch. Ophth., 23:705, 1940.
14. Theodore, Frederick H., and Lewson, Arthur C.: Bilateral iritis complicating serum sickness. Arch. Ophth., 21:828, 1939.
15. Verhoeff, F. H., and Lemoine, A. N.: Endophthalmitis phaco-anaphylactica. Trans. Int. Cong. Ophth., p. 234, Washington, D. C., 1922.
16. Woods, Alan C.: The action, nature and source of the "uveal poison" of ferment-producing bacteria. Arch. Ophth., 45:451, 1916.
17. Woods, Alan C.: Allergy and Immunity in Ophthalmology. Baltimore; Johns Hopkins Press, 1933.

NASAL SINUSITIS AND ORTHOSTATIC ALBUMINURIA IN CHILDHOOD

W. RAY SHANNON, M.D.
Saint Paul, Minnesota

ORTHOSTATIC or postural albuminuria constitutes one of the enigmas among the many that are encountered by the physician caring for children. It is my purpose to record a rather interesting feature of this disease which I have recently observed.

The outstanding feature of this condition is the appearance of albumin in the urine when the subject is standing up, the urine being albumin-free when he is lying down. This characteristic must be supported by the total lack of evidence aside from the albuminuria, suggesting kidney disease, such as elevated blood pressure, pathological microscopic elements, etc. Some observers permit the presence of a few casts and red blood cells without removing the case from this benign class.[2] It seems doubtful that such laxity is wise.

An attempt has been made by certain writers to give greater definition to albuminuria of this type by adding other specifications. Some think that lordosis, leading to circulatory back pressure on the kidneys, is responsible.[4] They have considerable support for their opinion in that conditions artificially imposed to simulate lordosis while the patient is prone may result in the appearance of albumin in the urine, and in that vice versa, the assumption of a posture which eliminates lordosis while standing may result in its disappearance.[3]

Other investigators have successfully enlarged upon the passive congestion theory by showing, through the medium of ureteral catheterization, that it is the left kidney from which the albumin comes, back pressure being greater on this side because of impingement upon the left renal vein by the aorta.[1] Still other writers made note of the importance of infection.[5]

Regardless of minor points, agreement seems to exist among most observers that it is benign in character, that it occurs most frequently in children and young adults, and that it tends to disappear with increasing age. At the same time it becomes very evident that the burden of proof as to the harmlessness of such albuminuria rests heavily with the physician making the diagnosis.

For many years I have been aware of the fact that there is a very close connection between infection of the nasal sinuses and disassociated albuminuria. The relationship is so intimate that experience has led me to suspect nasal sinusitis in any case showing albumin without other discoverable evidence of kidney disease. In the course of observation of a case of this type I became aware that it was only the daytime urine that contained albumin. Urines collected before getting out of bed in the morning were invariably albumin-free. This discovery led to like investigation of other cases and it soon became evident that such was the usual thing for this type of case. The following instances are typical.

Case 1.—A boy, fourteen years of age, complained of abdominal pains arising, as subsequent events showed, from an irritable colon. In the course of his examination a heavy cloud of albumin was found in his urine. Microscopic examination was negative. At his second visit, five days later, it was found that the urine passed before getting out of bed in the morning was free of albumin while that obtained at the office showed a light cloud. The relationship of this situation to nasal sinusitis was recalled, but since he had no complaints and there were no evident findings pointing toward that condition, nothing was done. A week later, early morning, day, and evening specimens were all albumin-free.

However at this time he developed a "cold" followed by obvious nasal sinusitis. The next urinary samples, examined one week later, showed the early morning sample to be albumin-free while that obtained at the office contained a heavy cloud of albumin. A large amount of muco-pus was removed from the nose by nasal suction. The next pair of urine samples was examined four days later, and both samples contained albumin in large amount. On close questioning the patient admitted that he had forgotten to obtain the morning sample until he had been up for fifteen minutes. The same thing happened once again at a later date.

Under continued treatment the nasal sinusitis cleared so that at the end of six weeks the patient seemed to have recovered. During this time early morning samples of urine remained albumin-free while those obtained at night or during his office visits contained albumin in amounts decreasing until it finally disappeared.

A week later, while the morning urine was still clear, a faint trace of albumin was found to be present in the daytime specimen. The patient said that he had had a slight "cold" during that week. Since then the patient has been well of evident nasal infection and the urines have remained free of albumin both day and night.

During the period of observation no pathological microscopic elements were ever found. The blood pressure on one occasion was 108/65. The x-ray confirmed the clinical diagnosis of nasal sinusitis, locating the pathology in the maxillary and ethmoidal sinuses.

Case 2.—A boy, twelve years of age, was brought to the office because of general disability and constant "colds." Violent infection of the nasal sinuses was found to exist. The urine contained a heavy cloud of albumin but no microscopic finding. Subsequent tests showed the urine taken before arising in the morning to be albumin-free, while that taken at night or during the day contained varying amounts.

Under treatment, evidence of nasal sinusitis gradually lessened, and the amount of albumin in daytime samples gradually diminished until both finally disappeared in about one month. On two later occasions, separated by rather long intervals, both morning and evening samples of urine were found to be albumin-free. Improvement in the boy's general condition had paralleled that of the sinus infection and at the time of the last urine examination he was reported to be well.

Case 3.—A girl, seven and a half years of age, was brought to the office because she was constantly clearing her throat. She had had two "colds" in the preceding two months. She was found to have a low grade nasal sinusitis. Her urine contained a heavy cloud of albumin with no microscopic findings. Urine taken the next morning before she had gotten out of bed was free of albumin. Ten days later another comparison of morning and evening samples revealed the morning sample was still albumin-free while that taken at the end of the day contained a heavy cloud. The comparison was repeated later, at a time when the sinus infection had apparently cleared, and both samples were free of albumin.

These examples typify my general experience. The children have not been lordotic individuals, and it would seem doubtful from the physical types represented that such a factor was basically significant. Even though it might have been, its ultimate importance must have been secondary since the albuminuria cleared without attention to posture.

A similar position must be taken in attempting to apply Rytand's observations.[6] His subjects were apparently adults. This of itself introduces a conditioning element which might even exclude all of the cases that I have seen, since according to general opinion most individuals exhibiting real orthostatic albuminuria would have recovered spontaneously before reaching adult life. The relatively high percentage of anatomical abnormalities that presumably contributed in his cases would seem to make it clear that whatever conclusions he could have made would have to be revised and accorded at most an outside chance of important consideration in cases such as I have described.

The one finding common to all has been nasal sinusitis. As would be expected this has led to a periodic character of the albuminuria depending on the state of activity of the sinusitis. Russell was inclined to assign considerable importance to infection in relation to postural albuminuria.[6] However, he made no mention of focal infection though he did describe many of the symptoms of nasal sinusitis in his cases. For instance, it was quite common following scarlet fever, and his patients were often sickly, and had frequent headaches, etc.

It is impossible for me to take the cheerful view regarding the prognosis that seems to be held by a majority of the observers. I have

no idea what actually causes the kidney to be permeable to proteins at these times, but I do know that in my cases the agent that accomplished that end result is associated with infection and that it therefore is probably harmful. Furthermore, I have seen too many serious kidney lesions resulting from nasal sinusitis to view without concern any albuminuria associated with that condition regardless of whether microscopic elements were present or not.

Whether other focal infection than nasal sinusitis ever stands in this same relation to orthostatic albuminuria or not I do not know. One should expect that it would be true but my experience does not allow any conclusion on that point. Also it is not my intention to imply that all orthostatic albuminuria is related to focal infection.

Summary

Attention is called to the fact that orthostatic albuminuria in children is a frequent accompaniment and apparently a result of nasal sinusitis, especially of a subacute or chronic type.

Such being the case it is contended that orthostatic albuminuria must be viewed with much more concern than has been the custom in the past.

Bibliography

1. Beer, Edwin: Unilateral lordotic albuminuria (orthostatic albuminuria). Jour. Mount Sinai Hosp., 3:193, 1937.
2. Christian, Henry A. and O'Hare, James P.: Orthostatic albuminuria. Oxford Medicine, 3:Part 2, 590.
3. Janeway, T. C.: Postural albuminuria. Med. Clin. No. Am., 1:21, 1917.
4. Jehle, L.: Die lordotische Albuminurie. Leipzig u. Wien: F. Deuticke, 1909. (Quoted from Edwin Beer.)
5. Russell, J. W.: Origin and significance of postural (orthostatic) albuminuria. Lancet, 2:683, 1925.
6. Rytand, David A.: Roentgenographic study of orthostatic albuminuria by means of injection of diodrast. Arch. Int. Med., 59:848, (May) 1937.

MEDICO-LEGAL AND SOCIOLOGIC ASPECTS OF DIABETES MELLITUS

ARCHIE H. BEARD, M.D.
Minneapolis, Minnesota
and
JOHN A. LAYNE, M.D.
Great Falls, Montana

DURING the past few years various individuals have suggested that the diabetic patients may be controlled satisfactorily without the use of blood sugar determinations. They have advocated only the examination for urinary sugar. This concept admits of the greatest concern for the diabetic patient who has hyperglycemia. The patient who has no glycosuria, but who may be having periods of hypoglycemia has been forgotten in our enthusiasm to control glycosuria at all times. The diabetic patient who has persistent glycosuria injures chiefly himself, while the patient suffering from hypoglycemia may become a menace to other individuals. We are inclined to doubt the wisdom of any régime which does not stress the dangers of hypoglycemia as much as those of hyperglycemia.

It is well known that the level of the blood sugar at which symptoms of hypoglycemia appear varies among individuals. There is also a variation in the same individual at different times, and the level at which symptoms appear in children is, as a rule, lower than in adults. It must be remembered the rate of fall of the blood sugar is an important factor in determining the level at which symptoms occur. This seems to be responsible for the difference in the symptoms of overdosage from regular insulin as contrasted with protamine zinc insulin. The diversity and lack of association of premonitory symptoms which occur in hypoglycemia as a result of overdosage of protamine insulin, often result in a state of chronic hypoglycemia. As a result the patient may later disclaim all knowledge of many acts which he may have done.

It is probable that every diabetic patient taking insulin sooner or later develops symptoms of hypoglycemia. If the patient learns to recognize the earliest premonitory symptoms produced from over-dosage of regular insulin, he is able to stop the reaction before it progresses further. This is not always true with protamine zinc insulin and before he realizes his condition his ability to make decisions may be lost.

We have been told, especially when using protamine zinc insulin, that headache, nausea, vomiting and vertigo are the symptoms which the pa-

These findings were accumulated from private practice and the Diabetic Clinic of the University Hospital at the University of Minnesota. This paper was presented at Minneapolis, Minnesota, May 9, 1941 before the Minnesota Society of Internal Medicine.

TABLE I

M., aged thirty-six, seen in diabetic coma, January, 1937. Blood Sugar = 540 CO_2 Tension 17 vol. %

Date	Blood Sugar	Urine Sugar	Symptoms	Insulin	Diet
3/12/37	84	A.M. 0 P.M. 2+		Prot. 40 once daily	Cho. 175 Prot. 80 Fat 110
3/19/37	9 A.M. 75 11 A.M. 100 2 P.M. 68 4 P.M. 86		Feels fine—no symptoms.	Prot. 35 once daily	Same
3/29/37	11 A.M. 217 2 P.M. 40 4:30 P.M. 36	2+ 0 0	Feels fine—a little tired.	Prot. 30 once daily	
4/21/37	9 A.M. 66 11 A.M. 173 2 P.M. 268 4 P.M. 170	0 0 3+ 3+		Prot. 30 once daily	
5/7/37	9 A.M. 100 11 A.M. 90 2 P.M. 120 4 P.M. 100		Been working hard. Very tired. No reaction but wife states pt. seems in a daze—not interested in his children, or home surroundings in evening.		
3/21/38	9 A.M. 52 11 A.M. 204 2 P.M. 112 4 P.M. 69	0 tr tr 0	Feels fine—note low morning blood sugar.	Prot. 25 Reg. 20	
10/9/40	9 A.M. 50 11 A.M. 170 2 P.M. 100 4 P.M. 40	0 0 0 0	Seen yesterday after dyspnea. Rapid pulse and mental confusion developed. Pulse rate before E.K.G. was taken thought to be 180. E.K.G. negative except for tachycardia of 120. States his greatest symptom now is nervousness and irritability.		

tient may associate with this condition. These symptoms may not always occur and the patient is unable to realize his condition before periods of disorientation, aphasia, and mental confusion develop. Therefore, the patient may continue to work automatically and it may be difficult for an observer to realize that a hypoglycemic reaction is present.

The slowness in the fall of the blood sugar is thought to be the explanation for the lack of premonitory symptoms and the cause for the suddenness of a hypoglycemia reaction as it sometimes occurs with protamine insulin. It is also well recognized that the action of protamine insulin is prolonged for more than twenty-four hours. As a result there may be a continuous state of mild hypoglycemia when the next daily injection is taken. We must note that any regulated diabetic under good control is subject to reactions because of both intrinsic and extrinsic variations beyond his control. Any number of slight changes in his environment may occur in his daily routine, as increased muscular exercise, or a meal that has been delayed or omitted. An unusual day at the office or heavy emotional strain, excessive exercise, such as volleyball late in the afternoon, or even an unusually prolonged evening of dancing, may upset the daily slight rise or fall of the blood sugar. At times a gastrointestinal affection which impairs the absorption of food may be sufficient to provoke a hypoglycemic episode in a previously well-controlled diabetic. The presence of sugar in a fasting, a postprandial or in a twenty-four hour specimen of urine cannot be depended upon to insure against hypoglycemia, since there may occur only a transient glycosuria. Sindoni has shown that no apparent quantitative relationship exists between the blood sugar in diabetic individuals receiving, either alone or in combination, protamine zinc insulin and ordinary insulin. He has pointed out, moreover, that the quantitative increase of dex-

TABLE II

S, aged forty (1936). Diabetes discovered 1 year ago (1935) during an insurance examination. Plays squash three times a week in winter and tennis three times a week in summer. Diabetic curve on glucose tolerance.

Date	Blood Sugar	Urine Sugar	Symptoms	Insulin	Diet
Feb. 1936	170	2+	Seen once a month since this date.	Prot. 40 once daily	Cho. 125 Prot. 80 Fat 150
2/3/38	74	0	Feels fine. Seemed a little hazy in talking to me. Called him 1½ hrs. later at club and he stated he was feeling fine but asked why I called. He did not remember the visit to my office.		
2/13/38	179	1+			
5/31/38	9 A.M. 164 11:30 A.M. 157 4:30 P.M. 118	1+ 1+ 0	Plans to play golf.	P 30 A.M. R 5 P.M. if shows sugar while following this am't exercise.	
6/2/38	43		States 2 hours after playing squash, took usual glass orange juice. He next remembers his wife crying over him at home. Had driven through heavy traffic between 5 – 6 P.M. When I saw him his bl. sug. was 43. However, he had danced until 2 A.M. the evening before.		
Oct. 1939	29		Son disturbed him while shaving in bathroom. Son states he attacked him with razor. Only due to lack of father's usual strength was son able to eliminate an accident. Wife states he acted as usual when awaking that A.M. Did not have usual mental dullness that comes with reactions.	P 25 A.M. R 0–5 P.M.	

trose in the urine after breakfast may alarm the physician into thinking that the patient has a markedly elevated blood sugar, whereas, only a relatively mild and transient elevation actually occurred. Finally, hypoglycemia from the use of protamine zinc insulin may be prolonged beyond twenty-fours, until an accumulative effect results in a severe reaction. One must always remember the severity of the reaction from protamine zinc insulin may be due to prolonged release of insulin from the site of repeated injections. As a result, permanent cerebral damage develops and a continuous low blood sugar over a period of days leaves the patient unable to interpret his difficulties. The public may think he is peculiar, but not realize the cause.

The patient has been taught to expect certain physical change as the symptoms of an impending reaction. They are principally, palpitation, and sweating with regular insulin, and nausea, vomiting and headache with protamine insulin. We next tell them asthenia develops in a later stage of both conditions. These statements are all very true, but we rarely impress upon the patient's family the necessity of watching for other bizarre symptoms. There are the neurological phenomena that occur with hypoglycemia. Vertigo and diplopia may be understood by the patient but tremor and ataxia, which the patient's family or the public may observe, is such a late manifestation that he may not be able to interpret them. This is followed by paresthesia, aphasia, twitchings and rigor and later by weakness or paralysis in one limb or group of muscles. One patient demonstrated this so completely that it was thought she must have developed a cerebral hemorrhage. We have been lead to believe that a reaction is demonstrated by a polysymptomatic condition, forgetting that monosymptomatic manifestations may occur. Monosymptomatic seizure may be shown only by the development of a tic.

All the above manifestations are only neurological and again we must turn to mental changes for expression of hypoglycemia. Here again the symptoms may occur alone and the usual findings expected and discussed above may not appear. It is for that reason we have to be so careful in evaluating our findings before any definite decision is made. There may, at times, appear signs of irritability, anxiety, depression or excitability.

TABLE III

George L., aged seventeen, diabetic since 1 year old

Date	Blood Sugar	Urine Sugar	Symptoms	Insulin	Diet
1933	171			R 30 A.M. 10 Noon 12 P.M.	Cho. 165 Prot. 75 Fat 140
1934	150			R 25 A.M. 0 Noon 7 P.M.	Cho. 150 Prot. 80 Fat 125
1935	A.M. 207	6 A.M.–11 A.M. 9 gms.		Prot. 20 A.M.	
	P.M. 140	11 A.M.–6 P.M. 8 gms. 6 P.M.–6 A.M. 10 gms.		Reg. 5 Noon 6 P.M.	
Moved to Milwaukee					
1940	8 A.M. 126 11 A.M. 196 2 P.M. 134 4 P.M. 86 10 P.M. 54 4 A.M. 37	0 2+ 1+ 0 0 Unable to arouse when taking sugar	3–4 mo. before seeing him in 1940: Mother states he was difficult to awaken in A.M. Teacher states was not as keen in school as formerly. Patient states has been unable to concentrate on his work. Feels O. K. except headache at times. Brought to Minneapolis because found wandering near his home.	P 32 } A.M. R 35 } R 40 P.M.	Cho. 150 Prot. 80 Fat 120
All symptoms above disappeared after restricting to P 25 + R 30 A.M. R 20 P.M.					

These are all conditions which occur in so-called ordinary individuals. Therefore, it must be recognized that hypoglycemia brings many sociological and medico-legal aspects.

There may be only a partial disorientation and confusion, with a tendency to loiter and slowness of thought and action. At these times the patient is not able to comprehend his condition. It is, therefore, very important that some member of the family recognize what a condition of irritability, excitability, or hilarity may demonstrate. At times some diabetics become morose and sullen and apparently very embittered with people around them. One wife told us at times her husband, without apparent cause, refused to sit at the table with her and engage in conversation. He stated later he could not remember the instance.

These patients, at times, have been known to isolate themselves in some other part of the house. Others, who are usually considerate, have become very rude. One patient, whose dinner was delayed one-half hour as a result of the late arrival of guests, met them with a rather blunt welcome. At another time this same individual, when taking his family to a public dining room became very abusive to the management when he was delayed in getting his table as previously arranged. The next day his son remarked to him that he could not treat the public and his family as he had the previous evening. He was surprised and was not able to remember any of the conversation.

Some will not be able to think rapidly enough to forestall an automobile accident, and others are incapable of handling various types of machinery, depending on their occupation. One of our patients was seized with a hypoglycemic reaction while driving from the city to his home, late in the evening. His only remembrance was his one thought to drive through traffic as fast as possible. Fortunately, no accident occurred. He was greatly surprised, upon returning to consciousness at home, to find his wife giving him orange juice and crying about his condition. Stenographers have been known to sit at their machines and cry, not able to operate them or understand the cause of their trouble. Individuals running machinery, such as seamstresses, locomotive engineers, et cetera, should be warned of the possible danger to themselves and the pub-

TABLE IV

Leo R., aged thirty-two

Glucose Tolerance

	OPD	Hospital
Fast	64 0	76.3
½ hr.	167 1+	162
1 hr.	247 4+	211
2 hr.	241 4+	214
2½ hr.	208 4+	139

Diabetic for 7 years—on unknown diet—showed no improvement. Put on Prot. Z. insulin 20 units once a day—later on as much as 120 units a day. Then dropped off to 20 units twice a day because on city relief. Headache, nausea, vomiting. On different occasions he beat his wife, was unable to operate his machine and knocked his hand through the bedroom wall.

Date	Blood Sugar	Urine Sugar	Symptoms	24-Hr. Output	24-Hr. Urine Sugar	Insulin
10/21/40	122	4+				Prot. A.M. 20 units P.M. 20 units
10/29/40	51	3+	Had reaction with headache and dizziness. Last symptom remembered was seeing double. Eye Department says eyes O.K.	3,300 c.c.	54.12 GM.	Reg. 15/0/15
11/ 8/40	Glucose tolerance above.					
11/14/40	69	4+	Now sweating and hungry. Personality changes—sadist ideas.	3,100 c.c.	77.5 GM.	Reg. 10/0/0
11/26/40	96	4+				
12/ 3/40	100	4+				
1/ 5/41		4+	Feels fine—no symptoms. Working daily. On general diet.			

Entering hospital for metabolic study. Diagnosis on entrance—Mild diabetic with low renal threshold.

lic. One individual who was promoted from fireman to railroad engineer refused his new position for this reason. He stated to me, the railroad for which he worked had never been able to find glycosuria during his yearly examination. He attributed this to the extreme care he and his wife took to keep his urine sugar free. These patients may be unable, during their reactions to make the simplest decisions and at times have been unable to take food or sugar which they might carry with them for such an emergency. One patient during a reaction while shopping downtown was able to decide that she needed candy and went to the confectionery store, but after arriving was unable to ask for it. At other times they have been known to misname the object they desire. Other patients have been known to be very abusive and scold their family and friends. Children have become problems to parents and teachers because of their misbehavior late in the mornings and afternoon towards the end of the school periods. Earlier in the day they have been different individuals and the most coöperating and brilliant students.

As a result these abnormal behaviors gradually exclude a diabetic from social contact with the world and their family. At times, business associates misunderstand their remarks and it may mean their success hinges on a condition that even the doctor has not understood or explained to the patient and family. Estrangement between husband and wife has been known to occur. Because of his anger a husband beat and injured his wife. One patient was ashamed to find later that he had blackened his wife's eye. We have all been led to believe that these patients usually develop asthenia early but apparently this may be a later manifestation and may occur after some mental abnormality.

At times a diabetic may develop increased difficulties in speech, thought and action. Sudden pseudo-hysteria, negativtism, psychomotor hyperactivity have occurred. It may manifest itself by maniacal behavior and acts of violence. Exhibitionism, sexual perversity, compulsive laughter and crying occur. Impulsive actions may be followed by later increasing disorientation and confusion. Other individuals have developed delusions condemning their friends, family and business associates. Hallucinations and wander-

TABLE V

Mrs. U., aged sixty-six.

Date	Blood Sugar	Urine Sugar	Symptoms	Insulin	Diet
	Admission 565 Discharge 142	0	Entered hospital for bronchopneumonia. While there changed from regular insulin t. i. d. to Prot. 80 u. once a day before breakfast.		Cho. 120 Prot. 60 Fat 60
Sept. 1939	45	0	Been at lake all summer. Sugar free all the time. For the last month has had headache, nausea and vomiting. Today developed weakness of left side of face and right arm and leg.	P 40 A.M. R 40 P.M.	Diet not known.

Gradually over two weeks symptoms of headache and other disturbances disappeared. Paralysis of face and arm improved. At present is unable to remember dates or to call articles and individuals by their proper names. This condition has never entirely disappeared.

ings may appear. One such young man was found wandering within two blocks of his home unable to tell where he lived and because of his mental condition and ataxia was placed in jail by an officer of the law. Only the fact that some of his boy friends reported his difficulty to his mother, who immediately telephoned instructions to the police station, saved him from serious and prolonged hypoglycemia. Within a few minutes after taking some sugar, he was able to tell his name and home address. The last event he could recall was playing baseball on a vacant lot. Because of the ataxia, confusion, abusive language, and attempts to hit people these individuals may be picked up on the street and thought to be intoxicated.

Melancholia and paranoia occur at times. In some instances they have even been placed in hospitals as insane until the trouble is recognized by an intelligent physician. At times their actions have directed them to break dishes and furniture in public or at home. One such individual entered the University Hospital during the last year. He had tried to commit suicide on three occasions. Not until his hypoglycemia was discovered and corrected did his melancholia disappear. This basis for defense in a few instances, when an individual has killed another person, stating later he was not responsible for his actions, has been recognized by the court.

It has been reported at times the release of inhibitions from moral, religious, and educational restraints have been expressed by pathological state in which various sexual reactions have occurred. One man stated to us that he was very ashamed he had abused his wife. His embarrassment on finding he had attempted to hit her while in bed was only substantiated by the fact that he had destroyed the plaster on the wall next to his bed where his wife stated he had driven his fist while attempting to hit her. Nocturnal maniacal episodes have been followed by calling the police when the family or public have not recognized the cause.

There is also a certain aspect of civil law which must be considered. Wills and other legal documents drawn up when the party is in a hypoglycemia reaction may be contested. One of us has insisted in two cases when large wills were being signed to have blood sugar determinations at the same time to protect the testator's wishes. Civil suits for libel and slander against diabetics should take into account the possibility of hypoglycemia. Divorce and breach of promise suits should be considered with this view in mind. There are presented in the following charts various cases in which blood sugar determinations were completed during peculiar sociological reactions. It is interesting to review the blood sugar reports.

In conclusion, it is our belief that insulin, and protamine zinc insulin in particular, should be used with a great deal of care. It is our opinion, that injections of protamine insulin greater than forty units a day are not advisable and frequently are dangerous. Urinary sugar should not be depended upon, if peculiar mental conditions are occurring. The patient's urine should not be continuously sugar free. Blood sugar determinations should be made at periodic intervals even when there is no urinary sugar. As much, if not greater care should be extended in monthly supervision of a diabetic taking insulin who shows little or no glycosuria throughout the day,

as the patient who is showing large amounts of sugar in the urine. His family should be acquainted with the fact that mental changes may occur in hypoglycemia and today the family should be trained as well as the patient in these phases of diabetic therapy. However, we do think we should impress upon the patient and family that these conditions only rarely occur and are not the usual results if care in therapy is used. We do wish to bring the facts presented here, as well as our findings in the charts, to the attention of the doctor. At a rule, he has not been conscious of this phase in insulin therapy, especially if using protamine insulin in large amounts.

References

1. Adlersberg, D., and Dolger, H.: Medico-legal problems of hypoglycemia reactions in diabetes. Ann. Int. Med., 12: 1804-1815, (May) 1939.
2. Sindoni, A., Jr.: Blood sugar versus urine sugar as observed in patients treated with protamine zinc insulin and with ordinary insulin. Jour. A.M.A., 112:2503-2508, (June 17) 1939; 112:2595-2600, (June 24) 1939.

HISTAMINASE IN THE TREATMENT OF URTICARIA AND OTHER DERMATOSES

CARL W. LAYMON, M.D.
Minneapolis, Minnesota

IN 1939, Cumming and I[7] reported seventeen cases of urticaria, two of dermographism, and eight of atopic dermatitis, which were treated with histaminase. The results are summarized in Tables I, II and III.

Since the number of our cases was so small, we were unable to draw definite conclusions concerning the value of the drug in the treatment of the dermatoses mentioned, although we believed that histaminase was a useful adjunct to the treatment of urticaria, since our cases were of relatively long duration and had, in most instances, proved refractory to the usual therapeutic measures.

Although numerous reports concerning the use of histaminase in the treatment of various allergic diseases have appeared since our publication, those of Knoll and Beinhauer,[6] Forman,[3] Baker,[2] Altose,[1] and Goldberg[5] are of special interest to the dermatologist. After thorough study, Knoll and Beinhauer concluded that the syndrome of anaphylaxis in guinea pigs was unaffected by pre-treatment with histaminase, and that intracutaneous wheals produced by histamine in normal, as well as allergic persons, were not altered by the previous administration of histaminase. The clinical effect of the drug in patients treated by Knoll and Beinhauer is summarized in Table IV.

The authors noted that more than one-half of the patients who were decidedly improved were affected with atopic dermatitis or acute urticaria, two diseases given to spontaneous regression or even complete involution. The results with acne vulgaris were practically negative. The toxic effects from histaminase were negligible.

Forman, in January, 1940, reported a study of

TABLE I. URTICARIA—SEVENTEEN CASES

Clinically cured	10	(59%)	In the cured cases the duration of treatment varies from 4 days to 3 weeks. Average time for cure 10.7 days.
Improved	2	(12%)	One patient had urticaria for 9 months and was 50 per cent improved in 3 weeks. The second patient had urticaria for several years, and was 90 per cent improved after 2 months' treatment.
Unimproved	5	(29%)	In the unimproved cases the durations were: 1, several weeks; 2, several weeks; 3, five months; 4, two years; 5, three and a half years.

TABLE II. URTICARIA FACTITIA

2 cases

No benefit in either case. One treated three weeks, the other six weeks.

TABLE III. ATOPIC DERMATITIS

8 cases

No definite improvement in any. One month's trial of histaminase given, either without local therapy or without change in local therapy in use at the time of institution of histaminase.

From the Division of Dermatology, University of Minnesota, H. E. Michelson, M.D., Director; and the Department of Dermatology, Minneapolis General Hospital, S. E. Sweitzer, M.D., Chief.

TABLE IV

Diagnosis	Total No.	Pronounced improvement	Slight improvement	No improvement
Allergic				
Acute urticaria	13	5	0	8
Chronic urticaria	13	0	0	13
Physical urticaria	3	1	2	0
Atopic dermatitis	21	10	1	10
Angioneurotic edema	3	1	0	2
Contact (allergic) dermatitis	14	4	1	9
Erythema multiforme	6	2	1	3
Asthma and hay fever	12	2	2	8
Serum sickness	4	3	0	1
Allergic gastro-enteritis	1	1	0	0
Migraine	4	1	1	2
Allergic rhinitis	7	1	3	3
Total	101	31	11	59
Nonallergic (miscellaneous)				
Acne vulgaris	29	3	3	23
Senile pruritus	2	1	0	1
Pruritus ani	2	0	0	2
Total	33	4	3	26
Grand total	134	35	14	85

twenty-nine cases. He gained the impression that histaminase offered a new and helpful approach to the treatment of urticaria, angioneurotic edema, atopic dermatitis, and allergic coryza. His results in contact dermatitis and asthma were much less satisfactory. No untoward side effects were noted except in one case of urticaria in which the drug seemed to aggravate the condition and cause nausea and hyperacidity. He felt that no final conclusions could be reached without further studies.

Baker, in 1940, reported the successful treatment of two patients with hypersensitiveness to cold by the combined use of histaminase and a method of systemic desensitization to cold (immersion of the hands in ice water for gradually increasing periods). Baker also cited the excellent results obtained by Foshay and Hagebusch[4] in the treatment of serum sickness and the use of the drug by Roth and Rynearson[5] in the treatment of insulin reactions.

Altose treated eighteen cases with histaminase, including seven of urticaria, four of angioneurotic edema, three of both combined, and four of allergic dermatitis. In 44.4 per cent great improvement was obtained, in 33.3 per cent moderate improvement, and no change in 22.2 per cent. Results in the various types are shown in Table V.

TABLE V

	Greatly improved	Moderately improved	Unimproved
Urticaria only	4	3	
Angioneurotic edema	4		
Both		2	1
Allergic dermatitis		1	3

Altose stated that several of his patients who were being treated with histaminase were able to freely eat foods which had previously caused immediate urticaria. He added, however, that the fact that all of his cases of acute urticaria were relieved did not prove the efficacy of the drug, since urticaria is a capricious disease, and often terminates spontaneously. In his opinion, histaminase proved of definite value in chronic urticaria.

Goldberg, also in 1940, reported the results in dermatoses treated by histaminase orally, shown in Table VI.

TABLE VI

Diagnosis	No. of cases	Results	Comment
Papular urticaria	1	Cured	Histaminase alone
Atopic dermatitis	3	Improved	Histaminase plus other therapy
Dermographism	2	Unimproved	Histaminase alone
Allergic eczema	3	2 unimp. 1 imp.	Histaminase plus other therapy
Chronic urticaria	13	8 cured 5 imp.	Histaminase alone
Idiopathic pruritus	3	Slight improvement	Histaminase alone

Ten additional cases of chronic urticaria treated with injections of histaminase were all improved. Goldberg felt that the drug was a helpful factor in the treatment of allergic dermatoses. His patients who received intramuscular injections of histaminase had much better results than

those who received the enzyme in tablet form. In Goldberg's opinion, further clinical and laboratory data are necessary before any definite conclusions can be drawn concerning the specific value of the drug.

We have continued the use of histaminase in various dermatoses since our report in 1939, and can now add the data given in Table VII.

TABLE VII

Disease	No. of cases	Comment
Urticaria	35	21 clinically cured 14 unimproved
Acne vulgaris	7	No cases appreciably improved
Light sensitization dermatitis	1	Much improvement
Dermographism	2	No change
Atopic dermatitis	11	No improvement

In all of the cases of urticaria which did not improve, the drug was continued for one month, and in acne for two months. In the "cured" cases of urticaria, the time varied from four days to four weeks. The dosage varied from 60 to 120 histamine-detoxifying units daily (one unit represents the quantity of histaminase which is capable of detoxifying 1 mg. of histamine hydrochloride during twenty-four hours at a temperature of 37° C.).

As in our first group of cases of urticaria, those selected were of relatively long duration, and in most instances had proved refractory to the usual therapeutic measures. From personal experience with histaminase in the treatment of urticaria and study of the reports of other observers, it seems justifiable to state that the drug is of value in certain cases of this disease. Two-thirds of our cases to which histaminase was administered obtained satisfactory results.

Literature

1. Altose, Alexander R.: Treatment of certain allergic skin conditions with histaminase. Northwest Med., 39:212, (June) 1940.
2. Baker, Thomas W.: Histaminase in the treatment of cold allergy. Jour. Am. Med. Assn., 114:1059, (March 23) 1940.
3. Forman, Jonathan: The use of histaminase in the treatment of various allergic manifestations. Ohio State Med. Jour., 36:56, (Jan.) 1940.
4. Foshay, Lee, and Hagebusch, O. E.: Histaminase in serum sickness. Jour. A.M.A., 112:2398, (June 10) 1939.
5. Goldberg, Lawrence C.: Histaminase in the treatment of allergic dermatoses. Jour. A.M.A., 115:429, (Aug. 10) 1940.
6. Knoll, Alfred F., and Beinhauer, Lawrence G.: Experimental and clinical observations with histaminase. Arch. Dermat. and Syph., 42:896, (Nov.) 1940.
7. Laymon, Carl W., and Cumming, Harry: Histaminase in the treatment of urticaria and atopic dermatitis. Jour. Invest. Dermat., 2:301, (Dec.) 1939.
8. Roth, Grace M., and Rynearson, E. H.: The use of histamine and histaminase in the treatment of allergic reactions to insulin. Proc. Staff Meet., Mayo Clinic, 14:353, (June 7) 1939.

THE SEARCH FOR UNITY

If we are to have a durable peace after the war, if out of the wreckage of the present a new kind of coöperative life is to be built on a global scale, the part that science and advancing knowledge will play must not be overlooked. For although wars and economic rivalries may for longer or shorter periods isolate nations and split them up into separate units, the process is never complete because the intellectual life of the world, as far as science and learning are concerned, is definitely internationalized, and whether we wish it or not an indelible pattern of unity has been woven into the society of mankind.

There is not an area of activity in which this cannot be illustrated. An American soldier wounded on a battlefield in the Far East owes his life to the Japanese scientist, Kitasato, who isolated the bacillus of tetanus. A Russian soldier saved by a blood transfusion is indebted to Landsteiner, an Austrian. A German soldier is shielded from typhoid fever with the help of a Russian, Metchnikoff. A Dutch marine in the East Indies is protected from malaria because of the experiments of an Italian, Grassi: while a British aviator in North Africa escapes death from surgical infection because a Frenchman, Pasteur, and a German, Koch, elaborated a new technique.

In peace as in war we are all of us the beneficiaries of contributions to knowledge made by every nation in the world. Our children are guarded from diphtheria by what a Japanese and a German did; they are protected from smallpox by an Englishman's work; they are saved from rabies because of a Frenchman; they are cured of pellagra through the researches of an Austrian. From birth to death they are surrounded by an invisible host—the spirits of men who never thought in terms of flags or boundary lines and who never served a lesser loyalty than the welfare of mankind. The best that every individual or group has produced anywhere in the world has always been available to serve the race of men, regardless of nation or color.—RAYMOND B. FOSDICK: The Rockefeller Foundation—A Review for 1941.

CLINICAL-PATHOLOGICAL CONFERENCE

MINNEAPOLIS GENERAL HOSPITAL

Frank C. Andrus, Pathologist

Presentation of a Case

DR. J. STRICKLER: The case is that of a sixty-one-year-old white male who was admitted to the Psychiatric Service of the hospital on April 17, 1942. At that time he was comatose, unresponsive, and was unable to swallow food or drink water. He was said to have developed pain in his back about eight months previous to admission which gradually had become worse. The pain radiated to the lower costal margin and particularly in the lumbo-sacral region.

DR. G. FAHR: So there is the history of fairly diffuse pains. Did he give a history of pain in his bones; did anyone get that?

DR. STRICKLER: He complained of pain in the back and anterior lower costal margin. We could not tell for sure whether the pain was in the upper abdominal region or lower chest.

DR. E. T. BELL: Did he complain that it increased on breathing or bending over?

DR. STRICKLER: Later he refused to move; any movement caused severe pain.

DR. F. ANDRUS: Was he mentally clear when you examined him?

DR. STRICKLER: Not when I saw him. We couldn't get anything out of him and he did not respond to questioning. On motion he would groan and complain incoherently.

DR. STRICKLER: He was studied on two occasions in another hospital in November and December of 1941 for two weeks at a time. X-rays were taken and Paget's Disease or hyperparathyroidism were considered. He was given a series of injections of arthritis vaccine with no effect. Late in January, 1942, he became debilitated and refused to move. He complained of extreme pain when anyone tried to move him or care for him. A week before admission he became comatose and unresponsive. He was seen by a psychiatrist who sent him into the hospital and that accounted for his admission to our Psychiatric Service. He could not swallow and he had to be fed through a nasal tube.

Physical examination revealed a systolic murmur at the apex which was not transmitted. The blood pressure was 132/80. The skin was brownish and was discolored, particularly over his face. He made facial grimaces and complained whenever he was moved.

Laboratory data: The hemoglobin was 41 per cent and the leukocyte count was 7,700. The urine contained two plus albumin, 25 to 20 red cells, and 75 to 80 white cells per high power field. The blood urea nitrogen was 121.8 mg. per cent and the creatinine 5.7 mg. per cent at the time of admission. On April 23, 1942, the blood urea nitrogen was 132.9 mg. per cent and the creatinine 6.8 mg. per cent. Plasma proteins were determined on two occasions and were found to be 11.5 grams per cent and 10.96 grams per cent. The fibrinogen was .479 gram per cent, globulin 8.075 grams per cent, and albumin 2.4 grams per cent. Treatment was limited to keeping up the fluid intake. He expired on April 24, 1942.

DR. BELL: What was his urinary output?

DR. STRICKLER: About 30 to 50 c.c. per day.

DR. BELL: That is the usual finding, oliguria.

DR. FAHR: What was the specific gravity of his urine?

DR. STRICKLER: It was 1.015 on two occasions. We looked for Bence-Jones protein in the urine but it was absent.

DR. BELL: It is absent in about one-third of these cases. Now the problem here for the clinician to determine is why this man had uremia. I remember one case that had a protein of 13 with no urinary disturbances whatever. There was no renal insufficiency. Some of the patients, however, develop uremia. There are three reasons for this. One is the plugging with casts which causes anuria or oliguria. Another is that some incidental renal disease is present, like pyelonephritis. The third is that just what we have today which is only the second case in the literature.

DR. ANDRUS: Dr. Strickler, what led you to take the plasma proteins?

DR. STRICKLER: His anemia was the main thing.

DR. ANDRUS: I was interested in this case because the technician was concerned by the high level of the plasma proteins. The blood plasma was so viscid that it would hardly run from a pipette. When I learned the high level I was sure that we were dealing with a case of multiple myeloma.

DR. GRATZEK: The x-ray films show striking changes. The skull plate is especially highly characteristic of multiple myeloma.

DR. FAHR: How can you tell them from other metastatic lesions?

DR. F. GRATZEK: Because they are rounded. Of course, other conditions such as Schuller-Christian's disease give findings like these. There are also rounded areas of rarefaction in the ribs, upper femora, pelvis, and scapulæ and clavicles.

Autopsy Findings

DR. R. PAPERMASTER: The chief findings were limited to the bones and kidneys. The kidneys were enlarged to about twice their usual size. The ribs and sternum were soft and fractured very easily. They contained nodules which were soft and which destroyed the surrounding bone.

Microscopic Findings

DR. ANDRUS: Sections of the bone marrow have the structure that we ordinarily see in multiple myeloma. The tumor mass is made up of plasma cells. The cells have an eccentrically placed nucleus and a basophilic cytoplasm. We should mention that there is one type of multiple myeloma which does not give these discrete punched-out areas but involves the bones diffusely. If you don't examine bone marrow in such a case, you might miss the diagnosis.

DR. BELL: The kidneys show nothing but cloudiness grossly and no diagnosis can be made from that. They were enlarged. The first thing that we want to look for is to see if there are any casts in the tubules. The tubules are not dilated here. In most cases we get uremia because there are so many casts that the whole kidney is plugged. In these kidneys there are quite a number of casts but not enough to obstruct the kidneys. In the cortex there is shrinkage of the tubules. The glomeruli appear to be avascular and there is disuse atrophy of the tubules; they are not getting enough to do. There is no glomerulonephritis but a precipitation of protein in the glomerular capillaries which decreased the glomerular filtration. That is why this patient developed oliguria and uremia.

◆ CASE REPORT ◆

MASSIVE NON-NEPHRITIC EDEMA FOLLOWING RESPIRATORY INFECTIONS

J. ALLEN WILSON, M.D., Ph.D.
Clinical Assistant in Medicine, University of Minnesota Medical School
Saint Paul, Minnesota

IN THIS report I shall describe two patients exhibiting a form of edema which I have never seen previously and which I have not found completely described in the literature covering edema. The edema, in both cases in my opinion, is extrarenal in origin.

Case 1.—A male physician, then thirty-seven years of age, developed in December, 1938, an acute laryngitis and bronchitis. He did not stop work but took some steam inhalations and used generous doses of an expectorant cough syrup containing calcium iodide, ephedrine and nembutal. After five days he became severely nauseated and vomited several times in a twenty-four-hour period. This was thought probably due to the action of the iodide. No diarrhea occurred. Mild upper abdominal cramps and tenderness were felt for the next few days. The iodide expectorant was stopped (the bronchitis having improved just before the nausea appeared) and the abdominal discomfort disappeared, to be followed (ten days after the onset of the original infection) by a generalized pitting edema, most marked in the lower extremities. His weight increased thirteen pounds within a week. Physical examination revealed no abnormalities of the heart or lungs. He entered a hospital where the laboratory tests were as follows:

1. Repeated urine examinations showed no albumin or abnormal microscopic constituents. A trace of sugar was seen once. All urine specimens were acid in reaction and their specific gravity ranged from 1.015 to 1.020.
2. Blood examination showed: hemoglobin 90 per cent; white blood count 8,300 to 9,300; differential count normal.
3. The blood urea nitrogen was 13.1 mgm.; the blood sugar 126 mgm.; blood chlorides 500 mgm.; blood calcium 8.3.
4. The basal metabolism rate was minus 1 per cent.
5. A chest roentgenogram showed a normal heart shadow and no lung disease.
6. An electrocardiogram was normal.

The blood pressure was 124-78. There was no fever present at any time.

The patient was given a low salt diet, and fluids were limited to 1,200 c.c. daily. He was placed on six grains daily of desiccated thyroid and three grams daily of ammonium nitrate. (The physician in charge added the thyroid although the edema in no way suggested a myxedema.)

Within three days time the patient lost over thirteen pounds of fluid with a copious diuresis. He left the hospital and resumed work. There has never been a recurrence of this edema in the succeeding two and a half years, and he has remained in excellent health.

Case 2.—A married woman, a housewife, fifty-seven years of age, was seen by me on January 13, 1941. Three weeks previously she had developed abdominal cramps, diarrhea of four to six stools daily, and had vomited

Read before the meeting of the Minnesota Society of Internal Medicine, Minneapolis, May 17, 1941.

several times at the onset (similar to the infectious gastro-enteritis cases we were seeing frequently last winter). No blood or mucus was seen in the stools. A week before I saw her she developed a severe head cold and two days later a severe cough with substernal tightness and the expectoration of considerable mucus. With the onset of this head cold and bronchitis she developed a generalized edema, most marked in the lower extremities. She had never had this before except that for many years a slight edema of her ankles would appear if she remained on her feet for several hours.

Her weight had increased in the past week from 184.5 to 202.5 (a gain of 18 pounds).

Physical examination revealed inflammation of the pharynx and uvula. No cardiac enlargement was determined on percussion. No heart murmurs were heard. Numerous mucous râles were heard through both lung bases posteriorly. Her abdomen was obese but I thought there was a small amount of ascites present A massive pitting edema was present in the lower extremities extending well up onto the thighs.

Laboratory.—1. Urine alkaline; specific gravity 1.007; no albumin, sugar or abnormal elements.

2. The hemoglobin was 76 per cent (13 gms.); red blood cell count 4,410,000; white blood count 6,350 to 12,400.

3. The Wassermann test was negative; the blood cholesterol 220 mgm.; blood urea nitrogen 10 mgm.; blood sugar 102 mgm. The sedimentation rate was 57 mm. in one hour.

4. The chest roentgenogram showed a transverse type of heart measuring 52 per cent of the chest diameter, and very prominent bronchial markings indicative of bronchitis.

The temperature was 99.9; pulse 84; blood pressure 142-80.

This patient could not afford hospital care and being from out of town was not eligible for Ancker Hospital, so she was kept in bed at the home of her daughter. A salt free diet was given and her fluids restricted to 1,000 c.c. daily. She was given nine grams daily of potassium nitrate and a mild expectorant cough syrup without ammonium chlorides or iodides in it.

She passed two quarts of urine in the first twenty-four hours and another three quarts in the second twenty-four hours. In one week after beginning this treatment her weight dropped fifteen pounds and the patient returned to her home. A recent letter states that her edema has not returned.

Comment

To explain the occurrence of edema in these two cases, one must look for causes outside the kidney. According to Rehberg,[5] albuminuria is one of the symptoms in practically all diseases of the kidney. An almost constant finding in nephroses is cholesterinemia. Neither patient had albuminuria and in the one whose blood cholesterol was determined it was normal. In all diseases studied where extracellular edema is known to exist (kidney disease, heart disease, ascites, hydrothorax, anemia, beriberi, nutritional or hunger edema), the cause of the edema may be:

1. Decreased colloid osmotic pressure of the blood;
2. Increased capillary pressure (as in heart disease);
3. Injured abnormally permeable capillaries.

As long as these three factors are normal, Rehberg believes extracellular edema will not be formed.

Unfortunately in neither case were the plasma proteins determined. However, normally the colloid osmotic pressure of the blood is 350-400 mm. of water and edema does not occur in nephritis or nephrosis until this is lowered to 250 mm. of water. This drop is due to the loss into the urine of small molecules of plasma albumin which exert a high osmotic pressure. I believe that the absence of albuminuria in these two cases points against a change in blood osmotic pressure as being a factor in their edema.

Increased capillary pressure, which is the chief cause of edema with heart disease, can be ruled out here.

Increased permeability of the capillary walls is a transient condition and according to Snowden[6] is seen in the early stages of acute nephritis or in similar toxic states, especially in streptococcus infections. The blood proteins are not reduced but Fishberg[1] states that the edema fluid must show considerable amounts of protein in order to assume increased capillary permeability. Glomerular capillaries, of course, may be included, causing albuminuria, but it is theoretically possible to have some increased capillary permeability with edema but no albuminuria.

I believe that the factors of sodium chloride and water intake must be considered carefully in explaining these two cases of edema. Leiter[3] in discussing chronic nutritional edemas describes in addition to a chronic damage from gradually developing emaciation and a slow fall in the plasma proteins, an acute insult which is due to a temporary severe diarrhea or some infection followed by a period of relatively huge intake of salted fluids (such as soups) to appease the urge for food; edema appears quickly. If plasma proteins are not too low, rest in bed and restriction of fluids and salt dispel the edema. Hastings[2] points out that edema fluid can be formed only to the extent that salt and water are available for its formation. Where a so-called tendency to edema is present, the ingestion of relatively slightly increased amounts of salt causes edema. Withholding water and salt in these cases often prevents edema.

My explanation of these two cases of edema then includes:

1. A possible increased permeability of the capillaries due to infection.
2. Increased intake of water.
3. Increased sodium chloride intake. In one case the patient admitted being a heavy user of salt normally. In the other case the patient consumed extra amounts of heavily salted soups, salted butter, etc.
4. In one patient effervescent alkalies were also used, during the days preceding the onset of the edema. The sodium ion is known to favor retention of fluids and decreased urine output (Reed).[4]

In both patients prompt diuresis followed the limitation of fluids, restriction of sodium chloride and the use of adequate amounts of ammonium nitrate or potassium nitrate, respectively. No recurrence of edema has been had by either patient.

References

1. Fishberg, A.M.: Hypertension and Nephritis. pp. 119-169. Philadelphia: Lea and Febiger, 1939.
2. Hastings, A. Baird: The Kidney in Health and Disease, by Berglund, Medes, Huber, Longcope, and Richards. pp. 564-568. Philadelphia: Lea and Febiger, 1935.
3. Leiter, Louis: The Kidney in Health and Disease, by Berglund, Medes, Huber, Longcope, and Richards. pp. 581-608. Philadelphia: Lea and Febiger, 1935.
4. Reed, W. C.: The significance and management of ankle edema. Virginia Med. Monthly, 66:171-173, (March) 1939.
5. Rehberg, Paul B.: The Kidney in Health and Disease, by Berglund, Medes, Huber, Longcope, and Richards. pp. 569-580. Philadelphia: Lea and Febiger, 1935.
6. Snowden, R. R.: Edema—its differentiation and treatment. Penn. Med. Jour., 42:403, (Jan.) 1939.

HISTORY OF THE MINNESOTA STATE MEDICAL SOCIETY

By ARTHUR S. HAMILTON, M.D.
Minneapolis, Minnesota

(Continued from May Issue)

Eleventh Annual Meeting

The eleventh annual meeting was held in Saint Paul on June 17, 1879, the president, Dr. J. E. Finch of Hastings, presiding.

About forty members were present at the opening session, but this number was subsequently considerably increased by the election of twenty-one new members.

The medical and surgical papers presented at this meeting resemble those presented the year previously, but the surgical cases presented, while all case histories, were a little more varied and included other than emergency cases. Although these papers were undoubtedly interesting to those present, there was nothing in them that would interest a physician today, except for their novelty. The retiring president's address was largely devoted to therapeutics and materia medica. Dr. Finch did briefly mention Koch's work on micro-organisms, but stated that the investigations were inaccessible to the practitioner.

Twelfth Annual Meeting

The twelfth annual meeting was held in Albert Lea on June 15, 1880, in the Masonic Hall. Twenty-three new members were admitted. At this meeting, for the first time apparently, an exhibit of microscopic sections of tissue was shown. Microscopes were also exhibited and an essay was read on the use of the metric system in writing prescriptions. An amendment to the constitution was presented providing for the admission of women physicians to membership. After a prolonged debate the amendment was passed by a vote of 39 to 3 and women belonging to the Ramsey County Medical Society were admitted.

The address of the president, Dr. A. C. Wedge of Albert Lea, was short and contained nothing of medical interest. Dr. E. J. Abbott of Saint Paul, as chairman of the Committee on Surgery, read an address in which he reviewed the new advances in surgical technique. "The committee", he said, "made inquiries in regard to antisepsis, but so far have been unable to learn of a single case in which the Lister method has been followed in this state. We think a large number of the members use disinfectants to some extent, i.e., carbolized water for washing wounds, et cetera, and some use carbolized gauze as a dressing." He then discussed Listerism and stated that Mr. Lister in answering criticisms of his technique said that hygienic conditions varied with the different surgeons for or against the method. Mr. Spence, for instance, had his wards cleaned every year, while the wards of Lister were allowed to go uncleaned for three or four years, "an admission which does not reflect much credit on the antiseptic advocate.

It seems that more is claimed for the Lister treatment than it really deserves." He also mentions the use of the Bigelow lithotrite and the use of hot water and hot compresses in arresting capillary hemorrhage in wounds, a method which he warmly recommends. This appears not to have been in general use up to that time.

Most of the surgical cases reported were short, being nothing more than reports of patients attended. Dr. Abbott remarked during the session that but few had responded to the request for reports of surgical cases. Dr. Daniel Leasure of Saint Paul read a long paper on "The Law of Heredity" and there was a report by Dr. C. H. Salisbury, chairman of the Committee on Medical Jurisprudence, on a medical legal case. The constitution of the Society underwent a radical revision and the necessity for careful examination of the patient and a critical evaluation of the symptoms was more carefully considered.

Thirteenth Annual Meeting

The thirteenth annual meeting of the Minnesota State Medical Society was held in Saint Paul, June 21 and 22, 1881. Dr. C. H. Hewitt of Red Wing presided. Twenty-seven new members were admitted to the Society and Dr. A. J. Stone was elected president for the ensuing year.

Numerous amendments to the constitution were proposed, and Dr. Daniel Leasure, president of the Ramsey County Medical Society, in his address of welcome, noted that "There is a great diversity of opinion amongst leading surgeons as to all that is claimed for Listerism." He also criticized many physicians who "are already looking for a medicine that will *cure*, instead of trying to understand the true nature of the perverted life force that we call disease."

A dozen surgical cases were discussed by Dr. C. A. Wheaton of patients who had been under his care. These were much better presented and discussed by him than any heretofore brought before the Society.

The Committee on Diseases of Children submitted many reports of childhood disease and presented a long discussion on summer diarrhea.

This meeting was superior to those of the preceding years and the science of medicine was becoming more modern. The Society now had a membership of one hundred and seventeen. Six honorary members and twenty-seven active members had died since the Society was organized.

Fourteenth Annual Meeting

The fourteenth annual meeting of the Minnesota State Medical Society was also held in Saint Paul, June 6 and 7, 1882, Dr. A. J. Stone of Saint Paul, presiding. Dr. P. H. Millard of Stillwater was elected president for the coming year. Fifty-six new members were elected.

The Society did no constructive business at this session as the American Medical Association was meeting in Saint Paul at the same time and the committee reports were presented by title and ordered printed.

Dr. C. H. Hewitt presented an excellent address on "The Problem of Medicine as a Professional and Practical Art." This was discussed in many phases and certainly must have made a strong impression on his hearers.

The Committee on Diseases of Children made a long report, covering mostly gastro-intestinal conditions. As there was no understanding at that time of the part played by bacteriological contamination of milk, there was nothing in the report of interest to us now.

A large number of surgical histories were presented by Drs. McGaughey,

Wheaton, Hewitt, Dunsmoor, Dunn (who was then in Shakopee), R. L. Moore, Dedolph, R. W. Hunt, D. A. Stewart, L. H. Munger, D. W. Hand, W. W. and W. M. Sweney, F. E. Bissell, A. T. Conley, C. Berry and H. L. Coon. One can see from the numerous contributors to this committee's report that surgery was advancing rapidly, as many of the surgeons reported the use of carbolic acid and carbolized catgut in the treatment of their cases.

The reports of the Committees on Obstetrics, Gynecology and Nervous Dieases were short, but that of the Committee on Epidemics was largely composed of a review of the work and activities of the State Board of Health, commending its activities and suggesting that the work of the Board be extended and that the Legislature of the State give it more power.

The Committee on Medical Jurisprudence made an extensive report, written by its chairman, Dr. C. H. Boardman, on "Medical Expert Testimony." The same discussion that is indulged in today regarding the subject was adequately presented and remedies proposed. Dr. J. H. Dunn read a paper entitled "Notes on a Suit for Malpractice." This was a long report, in which he gave the court testimony of Dr. J. H. Murphy of Saint Paul, who appeared as an expert in a case tried before the court in Shakopee. Certainly Dr. Murphy's testimony was contrary to ideas entertained by surgeons then and now. As Dr. Murphy was a witness for the defense, perhaps it is not difficult for one to understand his attitude. Dr. Dunn surely had considerable courage to present the paper and castigated Dr. Murphy as he deserved.

Dr. Brewer Mattocks, then in Faribault, presented a statistical report on "Consumption in Minnesota."

The members of the Society were invited to attend the reception given by Hon. D. M. Sabin and the citizens of Stillwater to the members of the American Medical Association, who were in Saint Paul for the national meeting at that time.

Fifteenth Annual Meeting

The fifteenth annual meeting of the Minnesota State Medical Society was held in Minneapolis, June 19 and 20, 1883. The president, Dr. P. H. Millard, of Stillwater, delivered his presidential address and Dr. W. L. Lincoln of Wabasha was elected president for the ensuing year. Fifty-seven new members were admitted to the Society.

Dr. Talbot Jones offered a resolution, which was unanimously adopted, requesting the government to adequately house the Army Medical Library which, then as now, was in an overcrowded and non-fireproof building.

Doctor Millard, in his presidential address, stressed the part that bacteriological research was playing in medicine. He also stated that the part played by bacteria in specific diseases was now recognized, adding "We hope denunciations of Listerism have quite reached their climax, and we prophecy for the memory of this distinguished surgeon a fame second to none." He also protested against the tendency of young men to favor too early in their careers the practice of a specialty, a decision which he considered a great mistake.

"The members of this Society are undoubtedly all aware that the last session of the Minnesota Legislature passed a 'Medical Practice Act', the penalties of which become operative after December 31 this year. I believe, gentlemen, this is a very fair bill and abreast of any act now in force in any of the states."

Dr. C. E. Riggs presented a long and carefully prepared paper on "Functional Disease of the Nervous System", which was well received, and Dr. A. W. Abbott again attacked the subject of "Diphtheria" which was then as it was until a

decade or so later, a subject of paramount interest because of its mortality. The subject was mainly confined to treatment by tracheotomy.

A committee appointed to outline measures for improving the annual transactions of the Society requested that the practice of presenting reports of cases and operations be abandoned as such are little more than a catalogue of the achievements of members of the Society and, so far as they contribute nothing to the knowledge of members, are of no real value. It was urged that reports be not a mere recapitulation, but original papers. This certainly was a step in advance as the surgical histories heretofore presented in most cases were nothing more than a list of operations performed.

Dr. C. N. Hewitt made a report on the prevalence of diphtheria and typhoid fever in the state from 1872 to 1881. In 1872 there were forty-two deaths from diphtheria reported and in 1881 the number was 1,397. That of typhoid fever rose from 315 in 1872 to 711 in 1881. Dr. Hewitt implored the physicians of the state to join with the Board of Health in an endeavor to control these epidemics. In another report by Doctor Hewitt he read the act to regulate the practice of medicine as passed by the Legislature and mentioned the part the University of Minnesota was to play in the act.

Dr. C. A. Wheaton presented a well thought out paper on "Shock as Related to Surgical Operations", especially to surgery performed following railway injuries.

Sixteenth Annual Meeting

The sixteenth annual meeting of the Minnesota State Medical Society was held in Stillwater, June 19 and 20, 1884. Dr. W. L. Lincoln, the president, delivered the annual address, which was mainly an appeal to the members of the Society to engage actively in the promulgation of the doctrines of hygiene and of preventive medicine, and to study carefully the relations between inebriety and heredity, with a view to the accumulation of reliable information upon this important subject.

Changes in the reports made by the various committees were discussed and it was decided that these reports should be edited, printed and distributed before the annual meeting so that they could be adequately discussed at the meeting. By this method it was hoped that many inadequate and too brief reports could be eliminated.

The meeting was not very well attended, possibly because the location was not very favorable. Many of the committee reports were read by title and were ordered printed in the transactions.

Doctor Millard, in reply to a question as to what had been accomplished by the State Board of Examiners, stated that he had the addresses of more than two hundred persons practicing medicine who have left the state since the enactment of the law, because of its requirements. He said that the Board would endeavor to protect the profession and to raise the standard of professional excellence in the state, and asked the Society to aid and countenance them in their efforts.

Herniotomy and the radical cure of hernia were discussed by Doctors Millard, Hunter, Moore and others. Doctor Staples described a treatment of hip joint disease by means of a leather splint.

The Committee on Obstetrics indulged in a long discussion of the value of irrigation and intra-uterine injections; no agreement was reached as to which procedure was proper.

Dr. J. B. McGaughey of Winona was elected president for the ensuing year and sixteen new members were elected to membership.

Dr. C. H. Hunter, in his report of the Committee on Surgery, stated that while abdominal surgery was still the chief work of the surgeons but one report of surgery of the kidney in the state was known. Since his report had been written, however, Dr. French had performed the operation of nephrotomy. The patients in both cases died.

The Committee on Nervous Diseases selected hysteria as the subject of its report and a number of physicians reported histories of patients. The treatment of diphtheria was again taken up by the Committee on Diseases of Children and medicated steam inhalation seems to have been the newest procedure.

Seventeenth Annual Meeting

The seventeenth annual meeting of the Minnesota State Medical Society was held in Saint Paul, June 18 and 19, 1885. Forty-two new members were admitted to the Society. Doctor McGaughey, in his presidential address, stressed the crying need for more scientific investigation of the causes of preventive disease. "If we except smallpox there no serious disorder of which it can truly be said that we possess the power to entirely prevent its appearance, or even to restrict it within prescribed limits when it does appear."

The changes in the constitution proposed at the last meeting were adopted and Doctor Dunsmore moved that the various sections be eliminated and that but two sections, Medicine and Surgery, be substituted. This was carried.

Dr. E. J. Davis of Mankato was elected president for the ensuing year.

In the Section on Surgery Doctor Dunsmore reported three patients with suppurative perityphlitis. In two of them he operated three weeks after the sudden attack and drained the abscess. In the third patient the pus sack ruptured into the bowel. Recovery occurred in all three patients.

Diphtheria, as in previous meetings, was reported upon but no definite means of handling the disease was apparent. Its prevalence and the high mortality following its advent in a community had made it a major item for consideration.

Dr. W. W. Mayo and Dr. W. J. Mayo reported a number of surgical patients under their care and the good results following treatment and care. Since cholera was now present in Europe Dr. Talbot Jones read a paper on the subject, giving a summary of the knowledge of the disease and what sanitary measures should be adopted, should the disease reach this country. He stated that the disease had on two different occasions in the past appeared here when it was prevailing elsewhere in the country.

Eighteenth Annual Meeting

The eighteenth annual meeting of the Minnesota State Medical Society was held in Minneapolis, June 17 and 18, 1886. Forty-two new members were admitted and Dr. H. H. Kimball of Minneapolis was elected president for the coming year.

There was some criticism on the methods of the Committee on Membership in determining the status of applicants. Doctor Millard stated that on July 1, 1883 there were 1,160 practitioners of medicine in the state, of whom more than one-third were not regular graduates. The five-year exemption clause enabled 119 to remain in the state; 260 were compelled to leave. At present there were only 995 practitioners in the state. Of these, seventy-two remained under the five-year exemption clause. During the life of the Board it had examined about eighty for licenses, but had licensed only one. Traveling quacks were now almost unknown. The Board refused to recognize the diplomas of

seventeen schools. In answer to a question, Doctor Millard stated that a license could be rescinded if the licensee afterwards showed himself unfit to hold it.

There was considerable discussion on what constitutes a sufficient course of medical education. It was decided that the Legislature should pass a more drastic law governing the admission of practitioners in the state.

The papers read at the meeting were largely reports of the patients under the care of individual physicians or the number of particular cases in which operation had been performed, or medical patients attended.

Nineteenth Annual Meeting

The nineteenth annual meeting of the Minnesota State Medical Society was held in Duluth, June 16 and 17, 1887. The president, Dr. H. H. Kimball, being absent, Dr. W. L. Beebe of St. Cloud, as vice president, presided and Doctor Kimball's address was read by the secretary.

The Transactions for this year were considerably smaller than those of several previous years, this being due to the amendment to the constitution submitted by Dr. A. W. Abbott that "the Committee on Publication select from the papers presented such papers as have sufficient scientific and literary interest to warrant their publication."

The papers selected for publication were much longer and better written than those heretofore published. We note particularly those of Doctor Millard on "The Treatment of Strangulated Hernia" and Dr. James H. Dunn, who had moved from Shakopee to Minneapolis, on "A Decade of Observations and Experiences in Antiseptic Surgery." The former presented nine cases and the latter, sixty-one. Doctor Dunn concluded his presentation, "I almost feel that an apology is due for considering at this late day the subject of antiseptic wound treatment, when to scientific surgeons there is but one side to the question. My excuse is solely that so large a percentage of general surgery is still denied the benefits of this great advance of the past two decades."

Dr. C. F. McComb of Duluth was elected president to succeed Doctor Kimball and twenty-two new members were admitted. This was the first meeting of the Society held in Duluth.

Twentieth Annual Meeting

The twentieth annual meeting of the Minnesota State Medical Society was held in Saint Paul, June 21 and 22, 1888. Doctor McComb, in his presidential address, confined his remarks mainly to medical education and the inauguration of medical teaching by the University of Minnesota. He hoped that the efforts of the University would be successful and that the professional excellence of the staff would rival any of our eastern colleges and would be a source of pride to all.

The volume of Transactions of this year was less voluminous than that of the previous year, notwithstanding the fact that several of the previous year's papers were included because they did not reach the committee in time for publication the year before.

There was a well thought out essay by Dr. F. Allport of Minneapolis on "Thoughts on Medical Progress" and one by Dr. Burnside Foster on "Personal and Public Prophylaxis Against Infectious Disease." Dr. W. J. Mayo wrote on "Inflammations Involving the Caecum, Its Appendix or Both." His conclusions and operative treatment were similar to those reported by Doctor Dunsmore at the 1885 meeting.

Dr. A. MacLaren of Saint Paul presented an essay on "The Etiology of Chronic Ovaritis with Reports of Cases." For some strange reason his name does not appear as a member of the Society. Another well presented essay by Dr. W. A. Jones of Minneapolis on "Localization in Disease" dealt with the localization of lesions of the nervous system and he illustrated his essay with a number of case histories of lesions of the nervous system.

Dr. C. A. Wheaton of Saint Paul was elected president for the ensuing year and twenty-five members were accepted to membership.

Twenty-first Annual Meeting

The twenty-first annual meeting of the Minnesota State Medical Society was held in Minneapolis, June 20 and 21, 1889. Doctor Wheaton, as president, presided at the opening session, but being unable to attend the second day he was succeeded in the chair by Dr. H. H. Wilcox, the second vice president. Forty-one new members were admitted to the Society.

A committee was appointed to revise the constitution and by-laws and to report at the next meeting. It was voted that the meetings be extended to three days instead of two, with but two sections—Medicine and Surgery, as voted upon at the seventeenth annual meeting. A stenographer was engaged to report the discussions of papers presented at the meeting, but not being familiar with technical terms, after a short trial he refused to continue.

Considerable discussion took place regarding the charges made against Doctor Bowers, superintendent of the St. Peter Insane Asylum. Several motions were made but rejected, upholding Doctor Bowers and expressing sympathy for him. It was thought that since investigation was under way it was inopportune for the Society to pass such resolutions at the time.

In Doctor Wheaton's presidential address he first reviewed the history of the Society, stating that at its organization meeting in 1869 the members numbered 119, all from the counties of Ramsey, Hennepin, Fillmore and Winona. Now its roster showed 357 active members. He then reviewed the advances made in sanitary legislation and medical licensing in the state and urged the members to aid and abet the State Board of Medical Examiners and the Board of Health. He stated that the doubts regarding the efficacy of antiseptic surgery had now passed and that omission of an antiseptic was equivalent to malpractice. He quoted statistics showing that since the adoption of antiseptics in surgery the mortality from various amputations had fallen from 52 and 39 per cent to 5 and 4 per cent. He regretted that many practitioners still were not using antiseptic precautions, adding, "He of the profession who fails to make the effort in this particular is jeopardizing his peace of mind in this world and compromising his eternal happiness."

Most of the papers presented at this meeting were surgical and those on gynecological and obstetrical subjects dealt largely with surgical aspects. Dr. W. W. Mayo discussed "Prostatic Hypertrophy and Its Treatment" and Dr. P. H. Millard spoke on "Intubation in Diphtheria." Medical education was also represented by several papers, notably perhaps because the many schools of medicine in the state had now closed, leaving the University School of Medicine practically unique.

A paper by Dr. Thomas McDavitt of Winona on "Acne Vulgaris" now seems rather amusing. He advocated the use of cold sounds as a treatment and cited cases showing its efficacy. The treatment was not original with him.

One notes that for the first time in Transactions of the Society the dis-

cussions of many of the papers are printed. Also for the first time, a paper definitely pathological in theme was presented by Dr. J. Clark Stewart of Minneapolis, with the specimens described.

Dr. J. H. Dunn of Minneapolis was elected president for the following year, winning the election by one vote over Dr. G. W. Wood of Faribault.

Twenty-second Annual Meeting

The twenty-second annual meeting of the Society was held in Saint Paul, June 19, 20 and 21, 1890. Dr. Dunn, as president, presided the first day but was absent on the succeeding days as were also the vice presidents. The secretary, Dr. C. B. Witherle of Saint Paul, therefore, presided.

The Committee on Revision of the Constitution and By-laws reported and the Constitution as revised and presented by the committee was accepted. The treasurer, Dr. Sheardown of Stockton having died during the preceding meeting, the acting treasurer, Dr. Witherle, presented the treasurer's report. Dr. W. L. Beebe of St. Cloud was elected president for the succeeding year. Twenty-four new members were admitted to membership.

The Transactions for this year were printed in a small imperial octavo form with pages in double column arrangement, by the Northwestern Lancet Company. It is evident that the papers presented had been published in the *Lancet*.

One cannot comment on all the papers presented but one should read the presidential address of Doctor Dunn. It is a long address and thoroughly covers the state of medicine at the time it was presented. It must have been very favorably received by his hearers. Notable essays were read by Drs. J. W. Bell, J. W. Andrews, C. L. Wells, J. H. Stuart, C. G. Slagel, J. W. MacDonald, C. H. Mayo, W. J. Mayo, Justus Ohage, C. A. Wheaton and Archibald MacLaren, and James E. Moore. In Dr. Moore's essay on "When Shall We Operate in Perityphlitis?" he uses the word "appendicitis." The early operation for appendicitis had not yet come, however.

All the papers presented at this meeting were much superior to any heretofore presented. Medicine was becoming, aside from laboratory researches, quite modern. The discussions of the papers, except in one case, were not printed.

(To be continued in the July issue.)

President's Letter

MEDICAL INVESTMENTS: SUMMER ROUND-UP

I

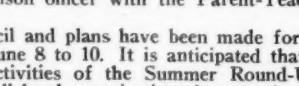
ALL of us who can do so will, I am sure, arrange to attend our Annual Meeting in Duluth. Medical education is the doctor's best investment. The value of his capital may be affected by low interest rates, his net income may be reduced by higher taxes, his purchasing power may suffer as a result of the increased cost of commodities, and the value of his real estate and securities may dwindle with the circumstances of conflict and the flux of events. But fortunately a professional man's knowledge of his profession and his accretions to that knowledge maintain their value irrespective of external factors. Money spent for books and postgraduate courses, for visits to hospitals and clinics, and for attendance at medical meetings yields a spiritual sense of comradeship, an intellectual satisfaction from increasing knowledge, and a practical preparation for more effective service in a field where there is so much to learn and to give. The monetary rewards of the future will be decided by the value of the service as determined by the economic factors of the future rather than those of the past. They will be in line with the future cost of living, whether inflation or deflation supervenes. These are the reasons one can say that medical education is the doctor's best investment.

II

Mrs. Norman H. Baker, chairman of the Health and Summer Round-up of the Minnesota Congress of Parents and Teachers, requests the coöperation of physicians and local medical societies in the Summer Round-Up, which is a state-wide effort by the Parent-Teacher Association to encourage examination of younger school children by the family physician. Activities must develop rapidly so that remediable defects can be recognized and corrected during the summer months. The campaign will also stress immunization and vaccination and is especially applicable to children who expect to enter school for the first time this year.

The Committee on Child Health of the State Medical Association, under the chairmanship of Dr. R. L. J. Kennedy, has been actively interested. At a meeting of the Committee on February 28, a resolution was passed for approval by the Council in which it was recommended that, in collaboration with the State Board of Health and the Center for Continuation Study of the University of Minnesota, an institute be organized on the diseases of younger children. Representatives designated by each component society were to be asked to attend this institute. It was also recommended that each representative so designated by the local medical society continue to act as a liaison officer with the Parent-Teacher Association of the area covered by the society.

This resolution has been approved by the Council and plans have been made for instruction at the Center for Continuation Study from June 8 to 10. It is anticipated that a well-organized effort of this kind will expand the activities of the Summer Round-Up on a sound basis. The work requires coöperation with all local organizations interested and active in child health. The interest and services of physicians are essential to the success of the project, and plans of procedure must be worked out in each locality by representatives of the local medical societies and the Parent-Teacher Associations.



President, Minnesota State Medical Association

EDITORIAL

MINNESOTA MEDICINE

OFFICIAL JOURNAL OF THE MINNESOTA STATE MEDICAL ASSOCIATION

Published by the Association under the direction of its Editing and Publishing Committee

EDITING AND PUBLISHING COMMITTEE

PHILIP F. DONOHUE, Saint Paul THOMAS G. CLEMENT, Duluth
E. M. HAMMES, Saint Paul O. W. ROWE, Duluth
H. W. MEVERDING, Rochester T. A. PEPPARD, Minneapolis
WALTMAN WALTERS, Rochester HENRY L. ULRICH, Minneapolis
B. O. MORK, JR., Worthington C. L. OPPEGAARD, Crookston

EDITORIAL STAFF

CARL B. DRAKE, Saint Paul, Editor
GEORGE EARL, Associate Editor
HENRY L. ULRICH, Minneapolis, Associate Editor

Annual Subscription—$3.00 Single Copies—$0.40
Foreign and Canadian Subscriptions—$3.50

The right is reserved to reject material submitted for editorial or advertising columns. The Editing and Publishing Committee does not hold itself responsible for views expressed either in editorials or other articles when signed by the author.

Classified advertising—five cents a word; minimum charge, $1.00. Remittance should accompany order.

Display advertising rates on request.

Address all communications to Minnesota Medicine, 2642 University Avenue, Saint Paul, or National Bldg., Minneapolis. Telephone Nestor 2641.

BUSINESS MANAGER
J. R. BRUCE

Volume 25 - JUNE, 1942 Number 6

STATE MEDICAL MEETING

THE eighty-ninth annual meeting of the Minnesota State Medical Association will be held at Duluth the last of this month in spite of Hitler and Nazidom. The program, which promises to live up to the high standard set by our Association in past year, appears in this issue of the JOURNAL.

It will be seen that the scientific program is to be run in two sections held simultaneously throughout the three days of the convention. With both sections held in the Armory, one can easily step from one to the other.

Round-table discussions, which have become popular and seem to aid rather than inhibit digestion, will be extensively used at the coming meeting. Some eleven Round Tables, each seating twenty-five guests, will be conducted both Tuesday and Wednesday noon.

Minnesota talent will be supplemented by visitors brought through the courtesy of the Minnesota Radiological Society, the Northern Minnesota Medical Association, the Northwestern Pediatric Society and the Minnesota Academy of Ophthalmology and Otolaryngology. The last mentioned society will furnish much of the program the last day of the convention with clinics at Saint Luke's Hospital in the morning and an open meeting at the Armory in the afternoon.

The hospitality of Duluth is well known—the climate, too. While the rest of the state may be sweltering at the time of the meeting, Duluth is not likely to be. The weather for the golf tournament the Sunday preceding the session can almost be guaranteed to be perfect, as far as temperature is concerned. A trip to Duluth can easily combine duty and pleasure.

INDUSTRIAL HYGIENE

THE winning of the war will depend on production as well as the performance of our armed forces. For full production, the health of the workers is an important consideration. As Dr. Bristol brought out in his address before the Hennepin County Medical Society,* the industrial physician, whether full time or a general practitioner on part time, plays an important part in maintaining the worker on his job.

Not so long ago a physician who took an industrial job was looked down upon if not faced with ostracism by his medical confreres. Industrial work is approaching a specialty of physicians trained to do this work on a full time basis for the larger corporations. However, inasmuch as some 85 per cent of industry is carried on by comparatively small organizations, the general practitioner will be called upon to supply

*See page 441.

this type of medical service for a long time to come. The general practitioner should, therefore, inform himself as to the functions of an industrial physician.

The male employe loses on the average some eight days a year, the female employe some twelve days, on account of physical disability. The greatest cause of disability is respiratory infection. Efforts have been made to reduce the incidence of colds by means of vaccines given hypodermically or orally without conclusive results. There is no better way of preventing the spread of respiratory infection than by exclusion of the infected employe from work during the acute stage. Those prone to repeated colds can easily be discovered and referred to specialists for possible remedial care.

There has been some misunderstanding as to the proper function of the industrial physician. In part at least he acts in an advisory capacity to the employe, referring him to his own physician for medical care. The closest coöperation should exist between the industrial physician and the rest of the profession as well as public health authorities. In the same way the general practitioner as well as the specialist can render a distinct service in the promotion of industrial health through the advice he gives his patient.

The prevention of venereal disease among industrial workers becomes of additional importance in localities in the vicinity of new industrial plants and army encampments. Army regulations serve pretty well to control infection of enlisted personnel. Physicians have a duty to perform in uncovering sources of infection in coöperation with police and local health authorities.

Education plays an important part in the matter of industrial hygiene. Millions of citizens are taking first aid and nutrition courses. While these courses will not make physicians or dietitians of the class members they are of value. Some will be better prepared to meet an emergency and all should learn the essentials in diet and that wholesale taking of vitamin preparations is an unnecessary expense. We do not feel that we can be rightfully accused of conceit, when we suggest that industry instead of placing reliance in providing vitamin tablets for its employes irrespective of need, would obtain a greater return from an equal expenditure by employing the services of a physician.

MEDICAL ENLISTMENT

UNCLE Sam needs more doctors and dentists and needs them now. In order to expedite the voluntary enlisting of members of these professional groups a medical recruiting office was established in the latter part of May at 496 Lowry Annex, Saint Paul, with Major C. A. Wood representing the Surgeon General and Major B. Groebner representing the Adjutant General.

A certain number of Minnesota physicians not now in service have signified their willingness to serve their country in its hour of need. Without doubt many others will make the decision to join when they realize the need.

All a medical man under the age of forty-five need do now is to call on Majors Groebner and Wood, fill out an application form and proceed to Fort Snelling for his physical examination. In fact, he may be sworn in by his new local Board at once. The usual waiting period of two or three months has thus been cut to two or three days. A period of two or four weeks is allowed, if needed, after being sworn in for settling of affairs at home.

This new Board has authority to dispense commissions—first lieutenancies to those under thirty-seven and captaincies to those thirty-seven to forty-five. Recommendations for higher rank have to be sent in to the Surgeon General. This applies to physicians and dentists alike.

Until recently doctors married and with dependents have been put in Class III A. The latest ruling is that the pay of a first lieutenant is deemed sufficient for dependents and all doctors in good physical condition and under the age of forty-five belong in Class I A. When their draft numbers are called they will be drafted to serve a period of three months as privates and then possibly will be commissioned as lieutenants.

Uncle Sam has to have more medical men. During the last war about a third of the practitioners enlisted. The number of Minnesota physicians so far enlisted is indicated in the roster which appeared in MINNESOTA MEDICINE for May. The number hasn't nearly approached a third of the membership. Is the younger generation of medical men less patriotic than their fathers?

The determination of the personnel of the profession available for service and those essential

in their civilian locations has been left to the State and County Procurement and Assignment committees of the organized profession. The names of those approved are available to this new Board. It is to be earnestly hoped that enough medical men will enlist voluntarily to obviate the necessity of regimentation of the profession by the government, which could easily lead to state medicine following the present emergency.

MEEKER COUNTY TUBERCULOSIS PROGRAM

WHEN Dr. Chester H. Stewart, now head of the department of pediatrics of the University of Louisiana, was a member of the Council of the Minnesota State Medical Association for the sixth district, back in 1939, he made the suggestion that launched a program of tuberculosis control in Minnesota, which appears to be unique among the states.

As a result of Dr. Stewart's appeal to the Council, funds were appropriated by the State Medical Association and the Committee on Tuberculosis was instructed to set up plans. The plans took shape as a two-fold program.

First, the Meeker County experiment, recently described in *Collier's,* was launched. This experiment calls for the testing by use of the Mantoux tuberculin skin test of every resident in the country. Reactors are x-rayed without charge and active cases found are segregated and treated. The plan follows as nearly as possible the program of the veterinarians who began their county-wide testing of cattle for tuberculosis in Meeker County in 1923.

Second, definite standards for accreditation of each county for a measure of tuberculosis control were established and two counties, Lincoln in December, 1941, and Olmsted on May 22 this year, have already been awarded certificates of accreditation in accordance with the standards. This part of the program also follows the plan of the veterinarians whose accreditation program resulted in 1940 with the final accreditation of every county in the entire United States for control of tuberculous infection among cattle. The standards set by the committee were: (1) an average death rate on a five-year basis of 10 per 100,000 population or less; and (2) an infection rate among all high school seniors, as measured by the tuberculin test, of 15 per cent or less.

Dr. Stewart sat in on the preliminary meetings of the committee in which the program took shape but left Minnesota to take over his present post at the University of Louisiana in New Orleans before the work actually got under way.

At the invitation of the committee he came back to Minnesota last month, however, to give the principal address at the accreditation ceremonies for Olmsted County which took place at the Rochester High School auditorium. On the same program were Mayor Paul Grassle, of Rochester, Superintendent Irvin E. Rosa of the Rochester public schools, Drs. S. E. Slayer, superintendent of Southwestern Sanitarium, E. A. Meyerding, secretary of the Minnesota Public Health Association, A. J. Chesley, secretary and executive officer of the State Board of Health, Donald C. Balfour, director of the Mayo Foundation, C. F. Schlotthauer of the Rochester Parent-Teacher Association and J. A. Myers, chairman of the State Committee on Tuberculosis.

Dr. H. Z. Giffin, president of the Minnesota State Medical Association, presented the certificate on behalf of the Association and of the State Board of Health which is coöperating in the undertaking. The certificate was signed by Dr. Giffin, Dr. Chesley and Governor Stassen.

Recent figures from Meeker County indicate that somewhat more than one-third of the population of the county has already been tested and eight cases of active disease have been discovered and are under treatment. The physicians of the county are carrying on the program without remuneration, but x-ray films have been provided by the State Medical Association.

It is understood that the next county to receive the certificate of accreditation will be Murray County with the ceremony likely to be held at the time of the Murray County fair. Stevens County is the fourth county to qualify for the award so far as death rates are concerned. Testing of senior students of the county is now under way there.

It would seem that the Meeker County experiment will prove the practicability of an ambitious method for detecting every active case of tuberculosis in each county and the eventual elimination of the disease from every county and state in the union. The task does not seem insurmountable.

Plan to attend the meeting in Duluth.

MEDICAL ECONOMICS

Edited by the Committee on Medical Economics
of the
Minnesota State Medical Association
George Earl, M.D., Chairman

WAR AND STATE MEDICINE

It is inevitable that a large number of physicians, especially younger physicians, will be in the armed services in the next few years.

That means, obviously, that the men who remain will be fewer, older and much busier than ever before.

It does not mean, however, that these same older, busier men may forget all about their economic and social responsibilities on the theory that they serve enough who diligently practice medicine.

The fact is that those who remain in civilian life must be doubly vigilant to see that, in spite of the burdens and demands of the times, the men and women at home do not suffer for lack of medical care.

Government has extraordinary powers these days and neither legislators nor people will patiently endure maldistribution of services, even when the situation is caused by wartime demands, if they can correct the matter by taking over medical services.

Physicians who cherish the rights and privileges of private practice and who see in state medicine a first-rate menace to standards and progress, will redouble their efforts to avoid any cause for government action.

It is clear to all students of the situation that, right or wrong, the burden of proof is on the medical profession. If the doctors come forward quickly and in sufficient numbers to fill the needs of the armed forces and if, at the same time, the older men are superhumanly watchful to see that all actually essential civilian needs are met, then it will be difficult even for a government disposed toward subsidies to take any radical action toward the establishment of government medicine.

MR. ALTMEYER RESPONDS

Observers in Washington do not believe that the plan for expanding functions of the Social Security system to include hospitalization and other benefits has been dropped.

It is stated in some quarters, on the contrary, that the legislation sketched by the Social Security board will be introduced as soon as the general revenue bill is adopted.

The chief purpose will be to impose an additional pay-roll tax which will raise two billion dollars in increased revenue. Hospitalization is more than likely to be included among the increased benefits which are to be offered as justification for the heavy rise in the tax.

Hospital executives and hospital service plan officials are not the only people who will be vitally interested in the outcome of this new method of fund raising.

See as First Step

Medical men also see in the plan a first, easy stage toward new billions to be raised on the still more attractive justification of allowances toward medical care. Also they see, with the hospital executives, a serious threat to the voluntary hospital system and particularly the thriving new plan of group hospital insurance.

Observations by Dr. S. S. Goldwater, president of Associated Hospital Service, New York City, on the new proposal of the Social Security Board were reprinted in these columns last month. Following are excerpts from a reply from Mr. A. J. Altmeyer, chairman of the Social Security Board, which appeared in a communication to the *New York Times:*

Inclined to Limited Plan

"Our studies have recognized from the start," says Mr. Altmeyer, "that hospitalization payments could take different forms but have not led to any final conclusions. At least two main types have been considered. The social insurance system could guarantee to insured workers and their dependents whatever hospi-

tal service may be necessary and pay the hospitals a fair reimbursement from insurance funds. Under a more limited plan the insurance system would pay the insured workers and their dependents a fixed cash benefit in partial reimbursement for each day of hospital care received up to a specified maximum in any one year. . . .

"The Social Security board has been inclined to recommend a plan of the second type. The benefit might be a minimum of $3.00 a day or some other appropriate amount, in partial reimbursement for hospital service. For this program, as for social security programs generally, the objective would be to provide a minimum basic protection which many people would wish to supplement through other measures.

"The beneficiary, of course, might have the right to assign the benefit to the hospital which furnished the service so that the insurance system would make the payment directly to the hospital; or he might even assign his benefit to a voluntary hospital insurance plan to which he is a contributor. . . .

Would Cover Dependents

"It is quite true that the board has considered the level of benefits which should be provided by a contribution of one-half of one per cent by employer and worker. It should be pointed out, however, that the benefits considered would cover dependents of insured workers as well as the workers themselves and also retired workers and their dependents and survivors of insured workers who had died. This makes the protection much broader than is commonly found under similar programs. . . .

"As I have pointed out, social insurance benefits in general are designed to provide the worker only a basic minimum compensation for a risk . . . of course there is nothing final about the $3.00 which has been mentioned. . . .

"It was recommended as an alternative recently in the *New York Times* that the 'Social Security Board could hardly do better than to permit the (American Hospital) association to extend its New York Community Ward Plan throughout the country leaving the local hospitals to make proper adjustments.'

"However, as you are no doubt well aware, the voluntary hospital insurance systems have recruited their subscribers in the main from economic groups well above the neediest. If these neediest groups are to be reached and served by any such plans it would probably be essential to follow the *Times*' other suggestion that 'private enterprise should be given the opportunity with federal financial aid to carry on the work the President has in mind.'

"Less Cumbersome"

"A subsidized plan such as this seems to suggest would probably prove less satisfactory to all concerned, less adequate and more cumbersome than the sort of plan the Board suggests which contemplates that the federal government will provide minimum protection, only, to the mass of wage earners and leave the remainder for the individual and for private associations to cover in any way and to any extent that seems desirable and feasible.

"It is our reasoned conviction that such a program would not interfere with the development of voluntary plans but would result, as in the case of old age and survivors' insurance, in stimulating greater efforts to meet the remaining needs."

INTERPROFESSIONAL MEETING

Physicians, dentists, pharmacists from ten nearby counties met at St. Cloud under auspices of the Committee on Interprofessional Relations April 23 to talk over mutual problems and interests.

Nursing problems bulked large in the discussions and papers.

Dr. J. F. Du Bois, who opened the program, called upon all of the professions represented there to present an allied front.

"In Washington," he said, "there is a complete setup for socialized medicine. There will be many doctors who, at the end of the war, will have no particular place to go and who can be readily shoved into government positions.

"We must be militant and let the public know that the ones to suffer from state medicine will be the public.

"Legislation must be watched. We must get each other's point of view and we must always remember that once the public is aroused, legislators have to act whether for good or evil. Anything can happen at the opportune time—and the opportune time may well be at the end of the present conflict."

Mr. J. B. Slocumb, secretary of the Minnesota State Pharmaceutical Association, appealed to the doctors to be ready to prescribe substitute drugs if the preparations originally ordered are not available.

Stocks of chemicals are becoming scarce in many instances; in others they are impossible to secure entirely, he said. Substitutes will have to be used.

Miss Louise Newcombe, president of the Minnesota State Board of Nurses' Examiners, gave a comprehensive explanation of the nurses' shortage which exists everywhere at the present time.

It is true, she said, that student enrollment has increased 22 per cent since January, 1927. Also graduate registration has increased in the same period by 47.3 per cent. Public health nursing has grown by a total of 4,000 new nurses and industrial nursing has increased by 1,000. But

there have been many inroads. Airlines and passenger trains have taken a considerable number. Hospital regulations providing for eight-hour duty have decreased the number of nurses available. Lastly and most important of all are the demands of the armed services, the Red Cross and government services.

"The army requires six nurses for each 1,000 men, the Navy three," Miss Newcombe said. "The Army Nurses Corps needs 10,000 additional nurses by July 1.

"To supply this need and offset the shortage, increased enrollment of students is not enough. Refresher courses are being given to retired nurses and ward aides, Red Cross volunteer aides and auxiliary hospital workers are being trained. In Minneapolis a nine months' course for practical nurses is offered by Vocational and Franklin schools. About one hundred are graduated yearly. Since July, 1941, the Federal government has allocated $1,800,000 for nursing education."

Joint committees of physicians and nurses are studying the nursing situation in Minnesota in an attempt to meet the war demand, to maintain standards and to provide for needs of rural hospitals and rural communities.

NURSES NEEDED

Attention of all physicians has been called by Miss Laura A. Draper, chairman of the Student Nurses' Recruitment Committee, to the great need for well-qualified girls in the schools of nursing.

Before the war began the supply of nurses about met the demand, according to Miss Draper. As soon as war was declared the need increased sharply and it will continue to do so in direct ratio to the increase in the armed forces.

In Minnesota several schools have reported fewer than the expected number of applicants for the spring classes and a number of directors already state that applications for fall classes are falling short of the number customary at this time of year. In other parts of the country, furthermore, the need seems to be even more acute than it is here.

Many schools are expanding their facilities so as to be able to train larger classes and, though admissions may be closed in some individual schools, in general applicants do not meet the need.

Girls who enter nursing should be between eighteen and thirty years old. They should have good health and should have graduated in the upper one-third of their high school class or have maintained a "C" average in college. The cost is generally between $200 and $300 for the three years' training.

Physicians are often consulted about nursing as a profession and about selection of training schools. It is the hope of the committee that they will make a special effort in view of the need, to interest girls of high caliber in the nursing profession.

MINNESOTA STATE BOARD OF MEDICAL EXAMINERS

J. F. Du Bois, M.D., Secretary

Roseau District Court Grants Permanent Injunction Against Unlicensed Chiropractor

Re: State of Minnesota vs. K. H. Luross, also known as Knute H. Luross

In a case of far reaching importance, and one that establishes a precedent in the State of Minnesota, the Hon. Oscar R. Knutson, Judge of the District Court of Roseau County, Minnesota, made an order on April 9, 1942, granting a writ of injunction permanently restraining and enjoining the defendant Knut H. Luross

> "from practicing healing in the State of Minnesota, including the practice of Chiropractic, until such time as he shall have been duly and regularly licensed to practice said healing in accordance with the laws of the State of Minnesota and until he shall have procured a certificate of registration in the basic sciences, and from advertising or in any way representing to the public that he is qualified or authorized to practice healing or to practice Chiropractic as defined by the laws of this State or from diagnosing, or attempting to diagnose, or treating, or attempting to treat, any of the diseases, maladies, afflictions or ailments of the human body."

On April 17, 1942, judgment was entered pursuant to the Court's order.

The action was brought in the name of the State of Minnesota for and in behalf of all the people, by the Attorney General, the Hon. J. A. A. Burnquist, R. F. Merriam, Special Assistant Attorney General representing the Minnesota State Board of Chiropractic Examiners, and Bert Hanson, County Attorney of Roseau County. The State alleged that the defendant was engaging in the practice of healing as a chiropractor in Roseau, Minnesota, without a basic science certificate and without a chiropractic license. The State also alleged that on March 12, 1936, the defendant had been convicted in the District Court of Polk County, of practicing healing without a basic science certificate and had been sentenced to serve a term of six months in the Polk County jail, the sentence being stayed and the defendant placed on probation; that thereafter the defendant moved from Fosston, Minnesota, to Roseau, where he continued to practice as a chiropractor, resulting in his arrest in the fall of 1941, for practicing healing contrary to law. The Court in its conclusions of law found that it is unlawful to practice healing in the State of Minnesota without first obtaining a certificate of registration in the basic sciences; that the defendant was practicing the art of healing in the

State of Minnesota, and that the defendant has no such certificate of registration in the basic sciences. The Court also found that to so practice in violation of law constituted a public nuisance and that the State of Minnesota was entitled to a permanent writ of injunction forever restraining and enjoining the defendant from engaging in such practice, in any manner, until he was properly licensed.

Judge Knutson, in a memorandum attached to his order, stated:

"By enacting laws requiring such license as a prerequisite to practicing the art of healing our Legislature has established the public policy that it is injurious to health to permit anyone to practice without a license. If these laws are to have any effect, anyone who has not shown himself qualified by passing the required examination must be prevented from so practicing. How else can this be done than by an injunction? That the penal provisions of the law are ineffective has been effectively demonstrated by the defendant himself. He was arrested, tried and convicted of violating this law on the twelfth day of March, 1936. He was sentenced by the Court to be confined in the County Jail for six months and the sentence was suspended and he was placed on probation. Thereafter he again engaged in the practice of the art of healing at a different location. He was again arrested in the fall of 1941 and successfully evaded trial at the Fall Term of Court in Roseau County. . . Our legislature has enacted laws intended for the protection of the public in prescribing certain preliminary tests of qualification before authorizing anyone to engage in the practice of the art of healing. The public is entitled to be protected from one who has not shown himself to be qualified, and until he has passed the examination required by law and procured his license to engage in the practice of the art of healing, it must be presumed that he is unqualified and unskilled and a menace to public health and safety."

Notwithstanding the fact that Judge Knutson's order establishes a precedent in the State of Minnesota, it would seem that the Court's order is in accordance with the facts and based on sound reasoning. It has been said that the defendant will take an appeal to the Supreme Court of Minnesota. We hope that he does so for it will settle a much discussed question in Minnesota, and there is every reason to believe that Judge Knutson's order will be sustained.

FLUORINE ACCUMULATES LIKE LEAD IN HUMAN BODY

Fluorine accumulates like lead in the human body when too much is absorbed, according to Dr. Willard Machle and E. J. Largent of the University of Cincinnati.

This report was made to the meeting of the American Association of Industrial Physicians and Surgeons and the American Industrial Hygiene Association in Cincinnati.

When increased quantities of various fluorides were added to the diet there was increased absorption and retention. In every case about half the amount of flourine was absorbed and stored, regardless of how much was taken in. Normally about one milligram of fluorides is absorbed by a person on normal diet. This amount is passed off, but if more than two milligrams are taken in per day, the chemical begins to accumulate, particularly in the bones.

Commonest form of fluorine poisoning is mottled enamel of the teeth which occurs where the element is present in drinking water.—*Science News Letter,* April 25, 1942.

I'M IN THE NAVY NOW

LIEUT. COMDR. EDWARD DYER ANDERSON, MC-V(S), USNR
Minneapolis, Minnesota

I have been in the Navy for about two months and there have been so many new experiences and so many adjustments to make that I think it may be of some interest to those of you who are going into Medical Corps of the Navy to hear of some of the things you are going to meet and the reactions you are likely to have.

In the first place there is the tremendous decision you have or are making in regard to whether you should leave your practice at home and join the Navy. If you have made the decision and have sent in your papers, you then have that long interval of several weeks during which you feel suspended in mid-air while you wait to find out whether you are accepted or not. During this time you find it extremely difficult to carry on your regular work and you stay awake nights wondering what you will do with your family, your home and your practice and how you will meet your insurance payments. Then you can't help but wonder what will happen to you and your family after the war is over. You feel, and undoubtedly correctly so, that if the war lasts two or three years, your practice will be gone and you will have to start all over again.

Finally your commission and your orders arrive and then you have three or four days of hectic existence. There are bills to be paid, final arrangements to be made and friends and relatives to say goodbye to. The result of this six to eight weeks before you go, is that you leave tired, but keyed up, tremendously excited and pretty much scared. You have a feeling of wanting to help your country and all it stands for, and you want to do the best possible job you can. You also feel quite important. You are leaving home at considerable sacrifice, financially as well as personally. Your friends and patients have all rallied around and told you how much they will miss you. Now the Navy has called you and you can't help but feel that it is because they have a particular need for you, personally. You are scared, because you have always heard or thought that the men you will meet and who will be your superior officers, will be hard-boiled old sea dogs, who are arbitrary, unreasonable and ready to bawl you out for every deviation from the rules, regulations and customs of Naval Regime.

The result of all this is that you arrive at your assigned station with a feeling which is a mixture of apprehension, excitement and resolve to jump right in and do a grand job of practicing medicine. You feel as if you could do an unlimited amount of work and you are sure that the Navy can hardly hold out until you get there to do it.

And now the surprises begin to come, one after another. The first one you meet is that you are going to be associated with a grand group of men. The regular Navy doctors, including your superior officers, are

doctors just like yourself and your doctor friends at home. They treat you with courtesy, kindness and helpfulness. They make every effort to make you feel at ease and to help you in any way they can. In other words, they are gentlemen, and they treat you as one. I am convinced that one of the traditions of the Navy is that they assume that every one from the apprentice seamen up, is a gentleman until he proves himself otherwise. Also you find that the majority of the doctors now in the Navy are reserve officers like yourself, who either have or are going through the same experiences that you are and it gives you a bond that draws you closer together.

For the first few days you are busy running around filling out papers, getting on the payroll, ordering new uniforms, arranging to get your allowance for travel and uniforms, and finding a place to live. The excitement of being in a new place, the large number of men in uniform, the big crowds, the saluting, the pride of walking around in your new uniform all tend to keep you keyed up to a new high.

And then the bubble breaks with a bang. You are raring to go, and do the best work you ever did. The government wanted you and brought you here to use your particular talents (and in your own mind you are convinced they are considerable). And all of a sudden you find yourself with nothing to do, no particular place to sit, no office of your own, and you sort of stand around feeling like a lost soul wondering why you left the busy practice where you were wanted and appreciated, to come to a place where they don't seem to realize how really good you are, and where they don't seem to need you. On top of this, by the time the original thrill is gone, you are lonesome for your family, you can't find a decent place to live and altogether you feel lower than a snake. This state of mind lasts for a few days and then you find that gradually the clouds lift. They do find a place for you, and you have a job to do. It may, and probably is, entirely different from the type of work you did at home. Nevertheless you are surprised to find that you enjoy it and that it is good for you to do something different, and you are pleased to find that you can do it. You are beginning to make some friends among the other men, and you feel more and more at home. Inside of a couple of weeks you begin to feel like an old-timer, and you can answer questions and help the new man that comes in. You are still frightfully green, but nevertheless you are beginning to fit into your nitch. And then you begin to realize that with an organization as big as the Navy the only way it could work efficiently would be to have each man a part of a large pattern. The Navy can't be run on the basis of finding a place that would just suit you. They put you wherever they can use you, and expect that you will do your best job, whatever it may be. The surprising thing is that after a while you not only don't resent being just a cog in a vast wheel, but you actually enjoy it, and feel a great pride in being given the opportunity to help in keeping the wheel turning. As each day goes on you find yourself more and more proud of the Navy. One might say that although I may feel this way now, that six months or a year or five years from now, I may change my mind. Possibly so, but I don't believe it. I am firmly convinced that one's respect and pride in the Navy will continue to grow, as its personnel, because of tradition, training and character, are bound to make one proud to be one of them. I'm in the Navy now and I'm proud of it.

Naval Dispensary,
Navy Bldg., Washington, D. C.

NOTE: The opinions expressed in this article are the private ones of the author and are not to be construed as official or reflecting the views of the Navy Department or the naval service at large.

MARINE CORPS ENLISTMENT

Requirements for enlistment in the United States Marine Corps have been widened so that men previously ineligible to enlist can now qualify, according to Capt. W. L. Harding of the Minneapolis recruiting office, in charge of this district.

Especially qualified men between the ages of 30 and 33, and men varying not more than 1 inch from the present height requirements of 5 feet, 4 inches, to 6 feet, 2 inches will be considered for enlistment. Minimum age for enlistment is seventeen.

In addition, applicants wishing to enlist in the Marine Corps can now do so *immediately,* without any waiting period. They may still enlist even though they have been called for induction by the army.

Applicants may enlist in either the regular Marine Corps or the Marine Corps reserve. Enlistment in the regulars is for four years; in the reserves, for the duration of the war. Choice is up to the applicant, and both branches provide identical pay, training, assignment to duty and chances for promotion.

Further information may be obtained at the Marine Corps recruiting offices in room 172, Federal Office building, Minneapolis; room 113, Old Postoffice Building, Saint Paul; 6 Robert Street, Fargo, N. D., and in the postoffice buildings in Duluth and Albert Lea, Minn.; Minot, Bismarck and Grand Forks, N. D., and Aberdeen, Sioux Falls and Rapid City, S. D.

TREATMENT OF CARRIERS MAY PREVENT DYSENTERY

Dysentery outbreaks in Army camps and in civilian institutions such as hospitals and prisons may be prevented by one of the newer sulfa drugs, sulfaguanidine, Dr. Lowell A. Rantz and Dr. William M. M. Kirby, of San Francisco, suggest *(Journal, American Medical Association,* April 11).

In nine out of eleven patients, ten of whom were regarded as healthy carriers of dysentery, sulfaguanidine treatment banished the dysentery germs, the San Francisco doctors report. As a result, the patients were no longer disease spreaders.

The healthy carrier of dysentery germs is probably the source of most cases of sporadic infection and if working in the kitchen of a camp or hospital may be responsible for serious outbreaks of the disease. If the sulfaguanidine treatment lives up to its present promise it should be a valuable aid, the physicians state, to the control of the spread of bacillary dysentery.—*Science News Letter,* April 18, 1942.

INDUSTRIAL HEALTH

Edited by the Committee on Industrial Health and Occupational Diseases

J. L. McLeod, Grand Rapids, Chairman

H. B. Allen, Austin
L. S. Arling, Minneapolis
G. L. Berdez, Duluth
F. J. Elias, Duluth
L. W. Foker, Minneapolis
T. A. Lowe, South Saint Paul
L. G. Rigler, Minneapolis
E. E. Scott, Saint Paul
S. E. Sweitzer, Minneapolis
D. D. Turnacliff, Minneapolis
A. E. Wilcox, Minneapolis
H. G. Wood, Rochester

OCCUPATIONAL DERMATOSES

There are some important considerations in the treatment of acute dermatitis which should be brought to the attention of all physicians who see and treat industrial dermatoses. Loss of valuable time and future effectiveness of the individual may be prevented by following a few simple principles.

It must be emphasized that many cases of acute dermatitis do not require a specific treatment and if the patient is removed from the irritant and the treatment is of a mild soothing type and not irritating in itself the condition will be healed in about two weeks' time. Therefore, a specific treatment is not as important as management.

Treatment Should Be Mild

A dermatitis which does not respond to a given treatment and is steadily becoming worse should always be treated with a milder form of treatment and not with a stronger treatment. In addition to damage of the involved part, strong treatment may also disseminate the condition and produce sensitivity of distant parts. Whenever a dermatitis does not respond to a given treatment, the treatment and not the kind of dermatitis should be searchingly examined as the cause of the spreading.

Allergic Patients Sensitive to Chemicals

Patients who possess allergies are notoriously sensitive to chemical applications and may acquire sensitivities to drugs after they have been applied for a short while. This is strikingly demonstrated in the case of infantile eczema where the initial response to an ointment may be good only to see exacerbation with continued use and decided aggravation with increased strength. If then a change is made to a much milder preparation, healing often takes place.

I believe that all physicians should be warned that industrial dermatoses should be treated only with mild astringent solutions or very simple zinc pastes and that the source of irritation should be removed if possible and that the danger of producing general sensitivity should never be lost sight of.

D. D. TURNACLIFF, M.D.

WORKERS' HEALTH AND WAR PRODUCTION

Health programs in industry definitely reduce sickness and absenteeism, according to a résumé of reports from 234 companies made by the National Association of Manufacturers last year. An average reduction of 29.7 per cent in absenteeism was reported as a result of industrial health services. The saving exceeds the cost of health services to the employer.

"The estimated cost of a health program for a 500 man plant is $13.46 per employe per year, or a total of $6,730," the association points out in this report. "An estimate of savings and losses to industry in proportion to the extent of medical programs, made by the U. S. Public Health Service, revealed one and one-half times the average daily wage as the potential loss to the employer on account of absenteeism. Reductions of 47 per cent in accidents and occupational diseases and 28 per cent in absences, as reported for the average 500 man plant in the National Association of Manufacturers' study, would, on this basis, result in a saving to the company of $12,341 per year, assuming an average daily wage of $5. Deduction of $6,730 for medical costs leaves a net saving to the company of $5,611 per year while the saving in wages to the employes amounts to $6,300."

The conclusions to be drawn in wartime from these studies are obvious.

Could Build Battle Ships

"Even if only 10 per cent reduction in days lost annually from illness and injury in industry were brought about" said a recent editorial in

(Continued on Page 495)

MINNESOTA STATE MEDICAL ASSOCIATION

EIGHTY-NINTH ANNUAL SESSION

June 29, 30 and July 1, 1942 — The Armory, Duluth, Minnesota

Registration will open at the Armory, Monday, June 29, 8:00 A.M. Advance registration may be made at the Hotel Duluth on Sunday, June 28.

Scientific sessions will be held in two sections simultaneously at the Armory.

Luncheons.—Twenty-two Round-table Discussion Luncheons have been arranged for Tuesday and Wednesday, June 30 and July 1, at the Hotel Duluth. Tickets must be purchased in advance for these luncheons. Lists of subjects and leaders are printed in this program and on reservation cards mailed with the program. Attendance at each luncheon is limited to 25 and late-comers will be accommodated according to their choice if limits have not already been reached. Tickets 75 cents.

Annual Banquet.—The annual dinner for members, guests and their wives, will be held at the Hotel Duluth, Tuesday evening, June 30, at 6:30 p.m. Anton J. Carlson, Chicago, Professor of Physiology, University of Chicago, and Colonel F. W. Rankin, Lexington, Kentucky, president of the American Medical Association, will be banquet speakers. Tickets $1.50.

Night in Bohemia.—All convention visitors and their wives will be guests of the Minnesota State Medical Association and the St. Louis County Medical Society at an informal party to be held Monday night, June 29, at the Northland Country Club. There will be dancing, Bohemian music, and entertainment.

Guest Speakers.—In accordance with an established precedent, several societies are sponsoring visiting speakers for this meeting. We are indebted this year to the following societies:

The Minnesota Radiological Society—Speaker, A. C. Christie, Washington, D. C., who will deliver the annual Russell D. Carman Lecture in radiology.

The Northern Minnesota Medical Association—Speaker, A. J. Carlson, Chicago.

The Northwest Pediatrics Society—Speaker, A. L. Hoyne, Chicago.

The Minnesota Academy of Ophthalmology and Otolaryngology—Speakers, F. H. Haessler, Milwaukee, and J. R. Lindsay, Chicago.

Minnesota Academy of Ophthalmology and Otolaryngology.—The Academy will hold an open meeting in connection with the convention on Wednesday, July 1, 2 to 4 p.m., in the Duluth room at the Armory. Clinics in eye, ear, nose and throat have also been arranged at St. Luke's Hospital, Wednesday morning, from 8:30 to 10:30 a.m. A luncheon sponsored by the Academy will be held Wednesday noon at 12:30 at the Kitchi Gammi Club. Tickets $1.00. Clinics, luncheon and afternoon meeting are open to all convention visitors.

Nutrition Conference.—A special conference on Nutrition has been arranged for Tuesday afternoon, June 30, 2 to 5 p.m., in the Duluth room. Members and others especially interested in nutrition are invited to attend.

Industrial Health and Safety Conference.—A conference on Industrial Health and Safety will conclude the regular convention program, Wednesday afternoon, July 1, 2 to 4 p.m. Plant superintendents and safety engineers from Duluth industries are invited to attend this session.

Medal.—The Southern Minnesota Medical Association will present its annual medal for the best scientific exhibit presented by an individual physician at this meeting. Presentation will be made at the banquet Tuesday evening, June 30, at the Hotel Duluth.

Fifty Club.—This year the Council of the Minnesota State Medical Association takes pleasure in the inauguration of Minnesota's "Fifty Club," made up of members who have been in practice in Minnesota for fifty years or more. Presentation of appropriate lapel buttons to those who reach a half century of service will be a feature of all future annual banquets of the Association. The first will take place Tuesday night, June 30, in connection with the eighty-ninth banquet at the Hotel Duluth. Fifty-year candidates will be honor guests of the Association on this occasion.

Medical Women's Luncheon.—A luncheon meeting for all women physicians will be held at the Hotel Duluth, Monday, June 29, at 12:15 p.m. Reservations for this luncheon should be made direct to Dr. Selma C. Mueller, president, Minnesota Branch, American Medical Women's Association, 915 Medical Arts Building, Duluth.

All-Alumni Get-together.—University of Minnesota Alumni will hold their annual reunion at a cocktail hour to be held at 5:30 p.m., Tuesday, June 30, in the Arrowhead Room, Hotel Duluth, before the Annual Banquet. All University alumni are invited to attend. Russell J. Moe of Duluth is chairman of arrangements.

Reunion, Class 1902.—The Class of 1902 will hold a fortieth anniversary dinner Monday, June 29, at 6 p.m. at the Hotel Duluth. Reservations should be made with E. A. Meyerding, 11 W. Summit Ave., Saint Paul.

Woman's Auxiliary.—Wives of physicians attending the meeting may secure programs of the business and social sessions of the Woman's Auxiliary at the Women's Registration Desk in the lobby of the Hotel Duluth. All visiting women are cordially invited to attend the special events arranged by hostesses of the St. Louis County Medical Auxiliary. Among these is a tea Monday, 3:30 p.m. at the Duluth Women's Club. The Annual Meeting and Luncheon to be held Tuesday, June 30, at the Northland Country Club, are open to all Auxiliary members. Out-of-town members will be guests of the St. Louis County Medical Auxiliary at a Round-up Breakfast to be held Wednesday, July 1, at 10 a.m. at the Hotel Duluth.

Golf.—The annual Golf Tournament of the Minnesota State Medical Association will be held Sunday, June 28, at 1 p.m. at the Northland Country Club. Attractive prizes have been donated. All medical golfers are urged to enter. Registrations should be made in advance on the enclosed card to C. O. Kohlbry, Duluth, for the tournament and the buffet dinner at the club at 6 p.m.

BUSINESS PROGRAM

Hotel Duluth

Sunday, June 28

9:00 A.M. **Council** ..... English Room
10:00 A.M. **Reference Committees** ..... Rooms to be assigned
2:00 P.M. **House of Delegates** ..... Ballroom
7:30 P.M. **House of Delegates** ..... Ballroom

Monday, June 29

7:30 A.M. **Council** ..... English Room
12:15 P.M. **House of Delegates** ..... Ballroom

Tuesday, June 30

7:30 A.M. **Council** ..... English Room

Wednesday, July 1

7:30 A.M. **Council** ..... English Room
10:30 A.M. **Installation of Officers** ..... St. Louis Room, Armory

FILMS SHOWN BY TECHNICAL EXHIBITORS

Room B
Monday, Tuesday and Wednesday

Studies in Human Fertility
ORTHO PRODUCTS, INC.

Sex Hormones Physiology, Diagnosis, Therapy
PARKE, DAVIS & COMPANY

Hypodermic Syringes and Needles: Their Care and Function
BECTON, DICKINSON & COMPANY

SCIENTIFIC CINEMA

Room A
Monday, June 29

A.M.
10:30 **Coronary Occlusion-Myocardial Infarction**
A. R. BARNES, Rochester

P.M.
1:30 **Repair of Inguinal Hernia Using Strips of Fascia Lata for Suture Material**
J. C. MASSON, Rochester

3:30 **Electric Shock Therapy**
G. R. KAMMAN, Saint Paul

Tuesday, June 30

A.M.
10:30 **Technique for Intravenous and Intramuscular Administration of Antisyphilitic Remedies**
P. A. O'LEARY, Rochester

P.M.
1:30 **Bone Graft for Non-union of Humerus, Radius, and Ulna**
M. S. HENDERSON, Rochester

3:30 **Technique of Removing Skin for Skin Grafting with the Padget Dermatome**
R. I. STEWART, Minneapolis

Wednesday, July 1

A.M.
10:30 **Recent Traumatic Injuries to the Face**
G. B. NEW and J. B. ERICH, Rochester

P.M.
1:30 **Non-convulsive Electric Shock Therapy in the Treatment of Psychoses Associated with Alcohol, Drug Intoxication and Syphilis**
N. J. BERKWITZ, Minneapolis

DEMONSTRATIONS

Monday, Tuesday and Wednesday

X-ray Films of the Gastro-intestinal Tract ..... Room C
Lecture and Interpretations with Lantern Slides
R. W. MORSE, Minneapolis

First Aid ..... Room D
J. S. LUNDY, Rochester

X-ray Films of the Bones ..... Room C
Interesting Lesions
J. R. MCNUTT, Duluth

Obstetrical Demonstration ..... Room E
Forceps Delivery
Breech Delivery
W. C. KEETTEL, Madison, Wisconsin

X-ray Films of the Chest ..... Room C
Interesting Cases
J. P. MEDELMAN, Saint Paul

GENERAL SESSIONS

Monday, June 29
Section 1

Scientific Committee: A. N. COLLINS, T. R. FRITSCHE, W. H. HENGSTLER

A.M.
8:30 **Scientific Cinema** ..... Room B
Exhibits ..... Arena

9:00 **Clinical Pathological Conference** ..... St. Louis Room
Chairman, E. L. TUOHY, Duluth
A. L. ABRAHAM, Duluth — J. R. MCNUTT, Duluth
G. L. BERDEZ, Duluth — A. H. WELLS, Duluth

11:00 **Present Status of the Hemorrhagic Diseases** ..... St. Louis Room
A. J. QUICK, Milwaukee, Associate Professor of Pharmacology, Marquette University School of Medicine

P.M.
1:30 **Scientific Cinema** ..... Room B
Exhibits ..... Arena

2:00 **Symposium on Obstetrics** .. St. Louis Room
Chairman, R. J. MOE, Duluth
Toxemias of Pregnancy
J. A. HAUGEN, Minneapolis
Hemorrhage in Pregnancy
A. B. HUNT, Rochester
Use of Sulfonamides in Pregnancy
M. B. SINYKIN, Minneapolis
Episiotomy
J. J. SWENDSON, Saint Paul
Obstetrics in the Home
E. S. PALMERTON, Albert Lea
The Treatment of the Occipitoposterior Position
W. C. KEETTEL, Madison, Consultant, Wisconsin State Board of Health

4:00 **Modern Methods of Control for Measles, Scarlet Fever and Diphtheria** ..... St. Louis Room
A. L. HOYNE, Chicago, Clinical Professor of Pediatrics, University of Chicago Medical School and Professor of Pediatrics (Rush), University of Illinois College of Medicine

P.M.
7:30 **"Night in Bohemia"**.....
Northland Country Club

All convention visitors and their wives will be guests of the Minnesota State Medical Association and the St. Louis County Medical Society at an evening of music, dancing and informal entertainment, Monday, 7:30 p.m., at the Northland Country Club. Songs, dances, refreshments typical of old Bohemia will feature this entertainment. Everybody is invited to attend.

Monday, June 29
Section II

Scientific Committee: W. H. AURAND, F. J. HIRSCHBOECK, J. T. PRIESTLEY

A.M.
8:30 **Scientific Cinema** .....**Room B**
Exhibits .....**Arena**

9:00 **An Evaluation of the Kenny Technique of Treatment for Poliomyelitis, Lectures and Demonstrations**.....**Duluth Room**
M. E. KNAPP, Minneapolis; J. F. POHL, Minneapolis; LILLIAN A. HUBMER, R.N., Minneapolis

11:00 **Motion Pictures of the Kenny Method**
Duluth Room
Minneapolis General Hospital
J. F. POHL
The Curative Workshop, Minneapolis
LILLIAN A. HUBMER, R.N.

P.M.
2:00 **Symposium on Virus Diseases**.....
Duluth Room
Chairman, A. E. CARDLE, Minneapolis

Variations in Phytopathogenic Viruses and Fungi
E. C. STAKMAN, University of Minnesota
Virus Diseases of Animals
W. L. BOYD, University of Minnesota
Virus Diseases of Man
R. G. GREEN, University of Minnesota

7:30 **"Night in Bohemia"**
(See Section I.)

Tuesday, June 30
Section I

Scientific Committee: A. N. COLLINS, T. R. FRITSCHE, W. H. HENGSTLER

A.M.
8:30 **Scientific Cinema** .....**Room B**
Exhibits .....**Arena**

9:00 **Symposium on Newer Therapeutic Measures** .....**St. Louis Room**
Chairman, MOSES BARRON, Minneapolis

Use and Abuse of Sulfonamide Compounds
W. W. SPINK, University of Minnesota
A. E. BROWN, Rochester
Use and Abuse of Intravenous Solutions
O. H. WANGENSTEEN, University of Minnesota
H. L. ULRICH, Minneapolis
Use and Abuse of Digitalis
MOSES BARRON, Minneapolis
Discussion

11:00 **Some Unknowns in the Pathologic Physiology of Ageing**.....**St. Louis Room**
A. J. CARLSON, Chicago, Professor of Physiology, University of Chicago

12:00 **Round-table Luncheons**.....**Hotel Duluth**
Chemotherapy in Treatment of Wounds
W. W. SPINK, University of Minnesota
Colon Surgery
COLONEL F. W. RANKIN, Lexington, Kentucky
Diagnosis and Treatment of Cancer of the Throat
A. C. CHRISTIE, Washington, D. C.
Facts, Fears and Fancies about Our National Malnutrition
A. J. CARLSON, Chicago
Laryngotracheo Bronchitis
P. H. HOLINGER, Chicago
Management of Ulcers
O. H. WANGENSTEEN, University of Minnesota
Proctological Problems
L. A. BUIE, Rochester
Treatment of Prolonged Labor
W. C. KEETTEL, Madison, Wisconsin
Urinary Infections
P. F. DONOHUE, Saint Paul
Use of Newer Insulins
MOSES BARRON, Minneapolis
Use of Sulfa Compounds in Dermatology
F. T. BECKER, Duluth

P.M.
2:00 **Symposium on Anesthesia**..**St. Louis Room**
Chairman, G. N. RUHBERG, Saint Paul

Neurological Complications Associated with Spinal Anesthesia
E. M. HAMMES, Saint Paul
Spinal Anesthesia: General Principles
R. T. KNIGHT, Minneapolis
Newer Trends in Intravenous Anesthesia
J. S. LUNDY, Rochester

3:00 **Esophageal Diseases**.....**St. Louis Room**
P. H. HOLINGER, Chicago

4:00 **Russell D. Carman Memorial Lecture**
Diagnosis and Treatment of Bronchiectasis .....**St. Louis Room**
A. C. CHRISTIE, Washington, D. C., Professor of Clinical Radiology, Georgetown University School of Medicine
Introduction
G. T. NORDIN, Minneapolis

6:30 **Annual Banquet**.....**Hotel Duluth**
Presiding: R. B. BRAY, Biwabik, Vice President, St. Louis Co. Med. Society

Introduction of MRS. R. J. JOSEWSKI, Stillwater, President, Woman's Auxiliary
Presentation of Fifty Club certificates
Presentation of Southern Minnesota Medical Association Medal
Address: Black Oxen and Toggenburg Goats
A. J. CARLSON, Chicago, Professor of Physiology, University of Chicago
Address: The Challenge of the War to American Medicine
COLONEL F. W. RANKIN, Lexington, Kentucky, President of the American Medical Association

Tuesday, June 30
Section II

Scientific Committee: W. H. AURAND, F. J. HIRSCHBOECK, J. T. PRIESTLEY

A.M.

8:30 **Scientific Cinema** ..... **Room B**
Exhibits ..... **Arena**

9:00 **Symposium on the Use of Blood Substitutes** ..... **Duluth Room**
Chairman, P. F. DWAN, University of Minnesota
Diagnosis of Shock
E. S. PLATOU, Minneapolis
Indications for Intravenous Therapy
IRVINE MCQUARRIE, University of Minnesota
Protein Deficient States
R. M. JOHNSON, Detroit, Mich.

11:00 **Motion Pictures Showing Preparation of Human Serum** ..... **Duluth Room**
Human Serum Laboratory, University of Minnesota
P. F. DWAN

12:00 **Round-table Luncheons** ..... **Hotel Duluth**
(See Section I.)

P.M.

2:00 **Nutrition Conference** ..... **Duluth Room**
Chairman, R. M. WILDER, Rochester
Production and Storage of Food at Home
P. E. MILLER, University of Minnesota
Food Preparation and Preservation
EVA DONELSON, University of Minnesota
Nutrition During Pregnancy and Lactation
R. J. MOE, Duluth
Nutrition of the Infant and Child
J. D. BOYD, Iowa City, Iowa, Associate Professor of Pediatrics, University of Iowa
Nutrition in Normal Adults
J. J. BOEHRER, University of Minnesota

6:30 **Annual Banquet** ..... **Hotel Duluth**
(See Section I.)

Wednesday, July 1
Section I

Scientific Committee: A. N. COLLINS, T. R. FRITSCHE, W. H. HENGSTLER

A.M.

8:30 **Clinics*—Ear, Nose and Throat** ..... **St. Luke's Hospital**
Eye Clinic at 9:30 ..... **St. Luke's Hospital**

9:30 **Symposium on Emergency Surgery** .... **St. Louis Room**
Chairman O. J. CAMPBELL, Minneapolis
Management of Peripheral Nerve Injuries
A. W. ADSON, Rochester
Chest Injuries
T. J. KINSELLA, Minneapolis
Facial Injuries
J. B. ERICH, Rochester
Abdominal Injuries
M. G. GILLESPIE, Duluth
Shock Therapy
C. E. REA, Saint Paul
Treatment of Burns
N. L. LEVEN, Saint Paul
Management of Fractures Under War Conditions
H. B. HALL, University of Minnesota
Discussion

11:00 **Ocular Tuberculosis** ..... **St. Louis Room**
F. H. HAESSLER, Milwaukee, Staff Member of Columbia and Milwaukee Children's Hospitals

11:30 **Meniere's Disease** ..... **St. Louis Room**
J. R. LINDSAY, Chicago, Professor of Otolaryngology, University of Chicago

12:00 **Round-table Luncheons** ..... **Hotel Duluth**
Acute Abdominal Emergencies
C. H. MEAD, Duluth
Common Skin Diseases
F. W. LYNCH, Saint Paul
Encephalitis in Minnesota
C. M. EKLUND, Minneapolis
Fractures
R. K. GHORMLEY, Rochester
Intervertebral Disk
A. W. ADSON, Rochester
Medical Aspects of Tooth Decay
J. D. BOYD, Iowa City
Obstruction of the Vesical Neck
E. L. MELAND, C. D. CREEVY, Minneapolis
Pediatric Office Gynecology
C. J. EHRENBERG, Minneapolis
Physicians' Place in Industry
C. M. PETERSON, Chicago
Rheumatic Heart Disease in Children
R. L. J. KENNEDY, Rochester
Teaching of First Aid
J. S. LUNDY, Rochester

P.M.

2:00 **Industrial Health and Safety Conference** **St. Louis Room**
Chairman, MR. A. V. ROHWEDER, Duluth
The Doctor in Industry's War Effort
C. M. PETERSON, Chicago, Secretary, Council on Industrial Health, American Medical Association
Minnesota's Industrial Health Program
L. W. FOKER, Minneapolis
Prevention and Treatment of Heat Collapse Among Industrial Workers
F. J. ELIAS, Duluth
Diet and Fatigue
AUSTIN HENSCHEL, University of Minnesota
First Aid to Injured Workmen
R. F. MCGANDY, Minneapolis
What the Medical Profession Can Do to Increase Safety and Health in War Industries
MR. A. N. WOLD, Saint Paul

Wednesday, July 1
Section II

Scientific Committee: W. H. AURAND, F. J. HIRSCHBOECK, J. T. PRIESTLEY

A.M.

8:30 **Scientific Cinema** ..... **Room B**
Exhibits ..... **Arena**
8:30 **Clinics*—Ear, Nose and Throat** ..... **St. Luke's Hospital**
Eye Clinic at 9:30 ..... **St. Luke's Hospital**

*See footnote Section I.

*AN EYE, EAR, NOSE AND THROAT LUNCHEON will be held under sponsorship of the Minnesota Academy of Ophthalmology and Otolaryngology at the Kitchi Gammi Club, Wednesday, at 12:30 p.m., tickets $1.00. F. H. Haessler, Milwaukee, and J. R. Lindsay, Chicago, Academy guest speakers, will be there to talk and answer questions. The luncheon is open to all.

Wednesday, July 1

P.M.

9:00 Symposium on Tuberculosis. . Duluth Room
Chairman, W. A. O'BRIEN, University of Minnesota

Diagnosis and Treatment of Tuberculosis of the Trachea and Major Bronchi
S. S. COHEN, Oak Terrace
Collapse Therapy
G. A. HEDBERG, Nopeming
Role of Oleotherapy in Our Program of Collapse Therapy
F. F. CALLAHAN, Pokegama
Fallacy of Exclusive Dependence upon X-Ray in the Diagnosis of Active Pulmonary Tuberculosis
E. K. GEER, Saint Paul
E. J. BLACK, Saint Paul
Chest Conditions Simulating Pulmonary Tuberculosis
E. R. CROW, Ah-gwah-ching
Tuberculosis in Animals
W. H. FELDMAN, Rochester
Chemotherapy in Tuberculosis
H. C. HINSHAW, Rochester
Discussion

11:00 Symposium on Tuberculosis Control. . . . Duluth Room
Chairman, J. A. MYERS, Minneapolis

Diagnosis of Early Tuberculosis Among University Students
RUTH BOYNTON, University of Minnesota
The Meeker County Tuberculosis Control Program
LENNOX DANIELSON, Litchfield
How a County Can Be Accredited for Tuberculosis Control
S. A. SLATER, Worthington

12:00 Round-table Luncheons. . . . . Hotel Duluth
(See Section I.)

P.M.

2:00 Symposium on Eye, Ear, Nose and Throat . . . . . Duluth Room
Chairman, H. P. WAGENER, Rochester

Corneal Lesions
F. H. HAESSLER, Milwaukee
Common Diseases Affecting the Sound Apparatus
J. R. LINDSAY, Chicago
Acute Suppurative Otitis Media—A Reconsideration
C. E. CONNOR, Saint Paul
Staphylococcic Conjunctivitis
T. R. FRITSCHE, New Ulm
Visual Malingering
A. G. ATHENS, Duluth
Paralysis on the 7th and 8th Nerve with Recovery
O. B. PATCH, Duluth
Death from Ciliary Failure in the Respiratory Tract
A. C. HILDING, Duluth

BUY WAR SAVINGS STAMPS

AND BONDS

In Memoriam

Herman Burgess Cole

Dr. Herman B. Cole of Redwood Falls died on March 29, 1942, at the age of sixty-nine.

Dr. Cole was born in East Hamburg, New York, December 6, 1872, the son of Nelson Wesley Cole and Josephine Viola Blackmer.

After receiving his medical degree from the University of Buffalo, New York, in 1896, he practiced at Hamburg, New York, until 1897. He was married December 8, 1896, to Ella Mae McHugh of Buffalo.

Dr. Cole practiced from 1897 to 1918 in Franklin, Minnesota, except for two years spent at the New York Postgraduate Hospital from 1907 to 1909. From 1918 until the time of his death he practiced in Redwood Falls, associated with Dr. T. E. Flinn and Dr. John Gordon Cole, his son.

He was a member of the Renville County Medical Society, the Minnesota State and American Medical Association, the Civic and Commerce Association of Redwood Falls and the Odd Fellows.

Besides his wife, Ella M. Cole, Dr. Cole is survived by five children, Mrs. F. L. Bell, Milwaukee; B. L. Cole, Seattle; Mrs. Audrey Corbett, Redwood Falls; Richard F. Cole, army medical corps; and John Gordon Cole, Redwood Falls.

Arthur L. Herman

Dr. Arthur L. Herman died April 24, 1942, at the age of forty-one.

Born in Minneapolis, Dr. Herman attended the public schools, graduating from West Side High School. He later attended the University of Minnesota, receiving the degree of B.Sc. and in 1922 his degree of M.D. He interned at the Minneapolis General Hospital in in 1922-23, and subsequently practiced medicine and surgery in Minneapolis, being associated with Dr. George Eitel.

Dr. Herman was a member of the medical staffs of Eitel and Asbury Hospitals. His medical and general associations included The Hennepin County Medical Society, The Minnesota State Medical Association, The American Medical Association, Minnesota Pathological Society, The American College of Surgeons, Phi Beta Pi, Incus, Alpha Omega Alpha, I.O.O.F., The Interlachen Country Club and the Minneapolis Athletic Club.

David Jackson Jacobson

Dr. D. J. Jacobson of Bemidji died at Rochester, Minnesota, April 16, 1942, following a second heart attack. The first heart attack was suffered in Portland, Oregon, earlier in the month, while visiting his family there.

Dr. Jacobson was born February 2, 1891, at Des

Moines, Iowa. He received his medical degree from Drake University in 1913. He practiced at Des Moines from 1914 to 1923 when he moved to Russell, Minnesota. In 1927 he went to Blackduck where he practiced until 1938 and then moved to Bemidji.

Dr. Jacobson was a member of the Upper Mississippi Medical Society, the Minnesota State and American Medical Associations. He became a member of the Association of Military Surgeons in 1919 and the same year became a Reserve Officer in the United States Public Health Service, of which he was an active member during the first World War. He had been a member of the Home Lodge No. 370 A.F. and A.M. at Des Moines since 1912, having transferred to his local lodge in 1936. He also belonged to the Benevolent and Protective Order of Elks.

Dr. Jacobson is survived by his widow and two daughters Jolaynne and Lynne; two sisters Roslyn and Ella of Minneapolis and two brothers Joe and Ben of Des Moines, Iowa.

William Wilmerding Moir

Dr. William W. Moir was born in the town of Bloomington on March 26, 1881, the son of Joseph and Agnes (Pond) Moir. His early schooling was obtained at the Minneapolis Public Schools where he graduated from Central High School. He attended the Medical School at the University of Minnesota, receiving his degree of M.D. in 1906 and for the next year was an intern at Asbury Hospital.

From 1907 to 1911 Dr. Moir practiced in Gilbert, Minnesota. Subsequently he returned to Minneapolis where he practiced general medicine and surgery until the time of his death. He attended clinics at the University of Vienna in 1926.

He was on the staff of Asbury Hospital and served as President of the staff in 1939. During the World War he served as Medical Officer of Ambulance Company No. 4, attached to the 31st Infantry, stationed near Vladivostock, Siberia.

Besides being a member of Hennepin County Medical Society, Dr. Moir was a member of The Minnesota State and the American Medical Associations. He was a member of Ark Lodge, A. F. & A. M., Phi Rho Sigma, the Lafayette Club, Automobile Club and the Simpson Methodist Church.

Dr. Moir died at his home February 3, 1942, being survived by his wife and three sons, one of whom, Wm. W. Moir, is a First Lieutenant in the Medical Corps of the United States Army.

Reuben Pennington

Dr. Reuben Pennington was born in Minneota, Minnesota, November 19, 1894. He graduated from the Minneota High School and subsequently attended the University of Minnesota where he graduated from the College of Dentistry in 1915. After practicing his profession at Minneota and at Glenwood, Minnesota, from 1915 to 1923, he attended the medical school of the University of Minnesota from which he graduated in 1929. He interned at the Minnesota General Hospital from 1929-1930 and subsequently practiced general medicine in Minneapolis.

Dr. Pennington was a member of the visiting staff of Asbury Hospital and was on the staff of the University Students Health Service. He taught in the dental school of the University of Minnesota from 1930-1931. He was a member of the Hennepin County Medical Society, Minnesota State and American Medical Associations. He belonged to Delta Sigma Delta and was a member of Ark Lodge, A. F. & A. M. Dr. Pennington died February 25, 1942, being survived by his wife and one daughter.

INDUSTRIAL HEALTH

(Continued from Page 489)

The Journal of the American Medical Association, "this saving would equal the time required to build five capital ships, sixteen thousand tanks or nine thousand bombers."

As war production in the United States climbs and working hours are extended the question of fatigue and absenteeism also becomes acute in many plants.

Fatigue Is Problem

Careful British studies made during the last war showed that at three shell factories men working sixty-three and one-quarter hours per week lost 7 per cent of their time from sickness. The percentage diminished as the working hours decreased so that when the working week was fifty-four hours the lost time was only 4 per cent.

In American munitions plants where the working day was increased from nine to twelve hours, the rate of absenteeism increased from less than 6 per cent before the hours were lengthened to 9.3 per cent during the first year after the increase and to 12.2 per cent during the second year, thus showing the cumulative effect of longer hours.

The conclusion of British investigators, made on the basis of studies made during the last war and in this war, is that more than sixty hours a week leads to increased loss of time during work, increased absenteeism and illness. One day's rest in seven is found to be essential furthermore, and organized or enforced rest periods, particularly with an opportunity to take food during the rest period, assist in maintaining a high output level.

PROCEEDINGS of the MINNESOTA ACADEMY OF MEDICINE

Meeting of April 8, 1942

The regular monthly meeting of the Minnesota Academy of Medicine was held at the Town & Country Club on Wednesday evening, April 8, 1942. Dinner was served at 7 o'clock and the meeting was called to order at 8 o'clock by the President, Dr. Martin Nordland.

There were 44 members present.

Minutes of the March meeting were read and approved.

Upon balloting, the foilowing men were elected as candidates for membership in the Academy:

Dr. Francis Lynch.....Saint Paul
Dr. J. B. Carey .....Minneapolis
Dr. Walter Fansler .....Minneapolis
Dr. L. H. Fowler .....Minneapolis

The scientific program followed.

Dr. Yoerg, of Minneapolis read his Inaugural Thesis on "Cysts of the Urachus." Lantern slides were shown.

CYSTS OF THE URACHUS

OTTO W. YOERG, M.D.
Minneapolis, Minnesota

Cysts of the urachus, caused by incomplete closure of the allantoid canal, though uncommon, are frequent enough to occasion interest in a review of the literature. The condition probably occurs more often than the small number of reported cases would indicate.

Embryology and Anatomy

The urachus is a fetal relic. It is the remains of the allantoic stalk which in embryonic life extends from the cloaca into the umbilical cord. This canal gradually becomes occluded in early fetal life and forms a connective-tissue cord extending from the apex of the bladder to the umbilicus as the superior ligament, which lies anterior and is firmly attached to the peritoneum. Morris states that it assists in keeping the bladder up, especially in early life, so that the bladder is easily emptied and is allowed to enlarge in its freest directions.

The urinary bladder is of mesodermic origin and arises from the ventral portion of the cloaca, later forming a triangle continuing from the apex as the allantoic stalk to the umbilicus (Kantor). Bladder epithelium has been demonstrated in a urachus.

Luschka states that the allontois does not become a complete cord, but that small cavities may remain in the urachus. These cavities are called the Lacunae of Luschka and are found only at postmortem.

Pathological Anatomy

The normal process of embryonic closure of the allantoic stalk to form the urachus occasionally does not take place; instead a complete or partially patent urachus remains. When complete, a canal connects the bladder with the umbilicus, with the result that urine may escape at the umbilicus. McGregor states that this condition is usually associated with some obstruction of the outflow of urine from the bladder. He has had two such cases with obstruction at the prostatic urethra.

Cysts of the urachus can develop as a result of a disordered anatomy. They may be minute or large. A number of cases in which the cysts attained enormous size have been reported. Archibald states that the smaller cysts frequently show the remains of the longitudinal muscle coat of the urachus, being lined with transitional epithelium. The larger cyst walls are usually fibrous, and the lining is usually a single layer of flattened epithelial cells. The fetal urachus is lined with several layers of epithelium, and sections of the lumen may be occluded with cells.

Vaughn and Long are in substantial agreement as to classification. Long suggests a classification of four types for cysts of the urachus:

1. Those which communicate only with the bladder.
2. Those which communicate only with the umbilicus.
3. Those which communicate with both the bladder and the umbilicus.
4. Those which do not communicate with either the bladder or the umbilicus (blind type).

Vaughn has a similar classification and states that the blind type, closed at both ends, is the most frequent group encountered. Cysts of the urachus may occur anywhere along the urachus, but are more frequently found in the lower half.

Infection is present in practically all of the cysts that come to operation. Colon bacilli, streptococcus and staphylococcus have been reported. Many cases, however, show no bacteria on smear or culture. The mode of infection is not clear, but most observers feel that entrance through the lymphatics or blood stream seems plausible.

Cysts of the urachus can become malignant. F. Pendl reports a case of colloid carcinoma and states that Schwartz in 1912 reported the first case of primary carcinoma of the urachus. T. deWaard in 1939 reported two rare cases of cancer of the urachus.

John H. Long in 1927 reported a dermoid cyst of the urachus, definitely proved by microscopic section. Cullen in his "Diseases of the Umbilicus" states that dermoid cysts are rare and after reviewing the cases reported found only six to be definitely dermoid cysts.

Etiology

There appears to be no agreement as to why urachal cysts occur. Some believe that the Lacunae of Luschka enlarge to form the cysts. It would, however, hardly seem possible that these minute cavities could enlarge without a secreting lining. Although bladder epitehlium does not have a secreting function, it is, of course, possible that epithelial lining may have changed its function and become secreting. An obstruction of the urine flow would account for the completely patent cyst, but could not produce the internal blind cyst, which is by far the most common type.

Diagnosis

Diagnosis of a urachal cyst is usually made at operation. A small or large tumor mass in the midline between the umbilicus and the symphysis pubis may exist for years without producing symptoms. Only when these cysts become infected is relief sought.

The usual symptoms of infection, such as fever, increase in white count, and an enlargement of the mass, which is usually firm and often tender and painful, should lead one to suspect a urachal cyst. Only about 15% show a discharging sinus at the umbilicus. Diagnosis of a patent urachus is not difficult as urine escapes at the umbilicus. It is, in fact, usually recognized in infancy. If an opening is present into the bladder and closed at the umbilicus, a cystoscopic examination is of value, but differentiation from a diverticulum of the bladder may be somewhat difficult. The closed or blind type, by far the most common, is also the most difficult of diagnosis. The condition has been confused with parovarian cysts, extopic gestation, tuberculous peritonitis, appendicitis, distended bladder and, when of considerable size, ascites. It should not be confused with a vitelline duct cyst, also a rare vestigial condition, as this type of cyst, though it occurs at the umbilicus, does not continue as a sinus toward the symphysis pubis. If the infected cyst has ruptured into the peritoneal cavity, peritonitis will furthur complicate diagnosis.

Archibald states that urachal cysts of moderate size are palpable below the umbilicus, sometimes slightly to one side of the midline as rounded tumors often moving more freely from side to side than up and down, and that movement of the tumor from side to side may produce an indrawing of the umbilicus.

Treatment

Various methods of attack in the treatment of urachal cysts are advocated. In some cases the cysts can be removed completely without entering the peritoneal cavity. However, if infection is present, the cyst will usually be firmly adherent to the peritoneum and a conservative procedure is advisable, consisting of incision, curettage and free drainage. It appears that many of these infected cysts so treated will heal permanently. If, however, the sinus should persist, excision of the cyst can be done more safely later, in the absence of acute infection, for it is usually necessary to enter the abdominal cavity to facilitate removal. In the patent urachus which connects with the bladder, it is obvious that removal is necessary and that the opening in the bladder be closed.

Padovani and Dufour feel that if a resection of the cyst is done it is necessary to pass distinctly outside of the limits of the cyst in order to open the peritoneal cavity without trying to separate the cyst from the peritoneum, which would involve the danger of entering both the cyst and abdominal cavity and infecting the peritoneum with the septic contents of the cyst.

Review of the Literature

A study of the literature discloses that Lawson Tait, in an article published in 1883 in the *British Gynecological Journal*, gave the first clear picture of this condition. He reported twelve cases. Weiser made an extensive review of the literature up to 1906 and collected eighty-six cases, to which he added three of his own. In the eighty-six cases reported only nine were patent, seven were external blind, eight internal blind and forty-six blind. Sixteen could not be classified. He found few statistical papers. From his article it appears that Hoffman, in 1870, Wolff in 1873, and Atlee in 1873, had given first reports of cysts of the urachus. Next, Wutz, in 1883, analyzed all alledged cases diagnosed clinically or at autopsy, said most of them had been mis-diagnosed or had questionable symptoms, and felt that there were definitely no clinically important urachal cysts reported up to that time.

Doran also tired to break down the diagnosis of cases and in a measure agrees with Wutz.

Tait, it appears, was the first to make a diagnosis of urachal cysts before operation and only a few have made claim to prior diagnosis since then. F. Byron Robinson has reported four additional cases of Tait's and two of his own. Weiser's three cases have all been large cysts, two in women and one in a man. He made a complete removal of the cysts, and all these patients recovered.

The data on the condition suggest that it is rarely encountered. Weiser states that much of the history in the eighty-six cases up to 1906 was meager and questionable; twenty-one of these reported were males, fifty-eight females and in seven, sex not stated. He made the deduction that urachal cysts were most common in middle life, for half of the cases in which age was given occurred between the ages of twenty and forty. He deduced that they were more frequent in women than in men. Hugh Young states that only three cases were found in 12,500 admissions to the Brady Urological Institute.

Kantor, in the *Annals of Surgery* in 1939, gave a résumé of all cases reported from 1907 to 1936, to which he added two cases of his own. He found thirty-six cases. The records in this more recent series are most complete, as would be expected because of more modern methods in diagnosis. Roentgenology, contrast media and the cystoscope have made it possible to make a preoperative diagnosis more often. In this series of thirty-six cases, twelve were diagnosed preoperatively. Ages ranged from twenty months to sixty-nine years; average age, twenty-eight. The condition occurred in nineteen males and seventeen females, this in

contrast to earlier reported cases in which females predominated. Of these, thirty-two cases were in Group four, communicating with neither the bladder nor umbilicus. However, twenty-two of these were questionable, that is, could not be definitely placed in Group four. One case was a questionable Group three, communicating with the bladder and umbilicus or completely patent. Two cases were in Group 1, communicating only with the bladder. One ambiguous case was probably in Group 2, communicating only with the umbilicus. Definite infection was shown in twenty cases, eight cases were probably infected, and in eight

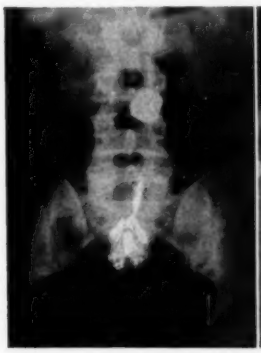


Fig. 1.

Fig. 2.

Fig. 1. Anteroposterior view—metal plaque lies over umbilicus—extending downward from plaque; the sinus terminating in cyst can be seen. Lipiodol was used for contrast media.

Fig. 2. Lateral view of abdomen, metal plaque over umbilicus, again showing injected sinus and cyst.

cases, no evidence was found of infection. Removal by excision was done in twenty-four cases, operation was reported difficult in five, and the peritoneum was excised in these five cases with cyst wall. Of those excised, sixteen were cured, five died of peritonitis, and one patient died of anesthesia. Incision and drainage were performed in twelve cases and all recovered. Nine were cured and two were improved, and later excised with cure. One case was not followed. In several cases the bladder was opened. Inadequate closure of the abdomen was encountered occasionally.

Kantor's two patients were a female child two years of age who was cured by incision and drainage, and a physician, aged 29. The cyst was drained but the sinus continued to discharge. Ten months later the cyst was excised, but convalescence was again complicated by continued drainage. Several months later x-rays disclosed a sinus extending to the right iliac region. An exploratory operation disclosed an old gangrenous appendix with abscess. Recovery was uneventful except for a persisting small fecal fistula.

Cases since 1936 have been reported by Garvin, A. Wyburt and J. C. Lacano Gonzaley, G. and R. Gayet, and Clavel and Cavilher.

Case Report

A.R.E., aged forty-six, married, construction superintendent, a vigorous, well nourished man, states that he has always been well, but for the past two years had noticed a small lump just below the umbilicus. This mass had increased slowly in size, but had not been tender nor painful until ten days before admittance to the hospital. At that time the mass became much larger, with pain, which became worse on straining. At no time had there been a sinus or discharge at the umbilicus.

The patient was admitted to Northwestern Hospital on September 2, 1923, temperature 100°, pulse 80, blood pressure 140/90, leukocyte count 16,000, urine negative except for a trace of albumin.

General physical examination disclosed a normal individual except for an acutely inflammed swelling two inches in diameter in the midline of the abdomen below the umbilicus. A diagnosis of an incarcerated infected hernia (omental) was made, with possible Meckel's diverticulum.

Operation was done the following day under general anesthesia. An incision was made over the swelling, which was then the size of a small orange. A thick walled cavity was entered which contained a heavy mucoid pus, without offensive odor. On exploration of this cavity, it was found that a probe could be passed down the midline between the fascia and peritoneum. No omentum was recognized and no sinus could be found entering the abdominal cavity. The wound was drained and the symptoms subsided. Ten days later, a complete gastrointestinal study was done. This disclosed no connection of the intestinal tract with the abscess cavity. Smears from the contents of the cavity showed no bacteria and no growth on culture. The patient was discharged from the hospital sixteen days after incision of this abscess. Two months later the wound had healed and remained sealed for six months, when a small amount of the same mucoid drainage reappeared, but the wound healed readily and did not cause discomfort.

The patient was seen again in June, 1927, when a diagnosis of an acute retrocecal appendicitis was made, and an operation performed. A retrocecal appendix with an abscess was found. The appendix was removed and the abscess drained. At that time it was noted that no connection existed between the abdominal parietal wall and the intestinal tract. The patient recovered, and left the hospital four weeks after operation.

In June, 1930, seven years after incision and drainage of the abdominal wall abscess, the patient returned again, stating that the sinus at the umbilicus had opened and closed every few months in the past three years, but recently had opened and closed once a week. He stated he was otherwise well but was tiring of the annoyance of this persistent discharge. He again entered Northwestern Hospital on June 30, 1930. His temperature was 98°, pulse 65, blood pressure 148/98. The urine showed a trace of albumin but no pus. He was taken to the x-ray department, where the sinus was injected with lipiodol and anteroposterior and lateral films were made of the abdomen. The films disclosed a sinus extending downward in the median line toward the pubic area, and at the lower end of the sinus an enlargement about 1.5 inches in diameter was noted. The sinus and cyst cavity appeared to be just anterior to the peritoneum but with no evidence of any connection with the urinary bladder.

A diagnosis from the x-ray findings of an infected urachal cyst and sinus was made.

Operation was performed on July 1, 1930, under local anesthesia. The sinus was injected with methylene blue. To our amazement a black contrast media resembling india ink resulted from the incompatibility with the iodide. This was found later to be a much better media for contrast than the methylene blue itself. A catheter was then inserted into the bladder to obtain urine, which was found to be free from methylene blue, indicating that the cyst did not connect with the bladder. An incision was made in the midline, from the umbilicus to the pubis, and the old scar was removed. The

sinus was then explored and dissected out from the umbilicus downward. It was found to lie under the fascia and directly over the peritoneum to which it was firmly attached. Afer careful dissection the sinus was removed without entrance to the peritoneal cavity, down to the lower end, where it widened into a cyst-like

Fig. 3. Low power photomicrograph from cyst wall discloses a large amount of fibrous tissue with chronic inflammation, and blood extravasation.

cavity about 1.5 inches in diameter. The lower end of this cyst cavity appeared to end at the dome of the urinary bladder. The cyst was firmly adherent to the peritoneum and contained a broken down cellular debris, which was scooped out. Smears made of this material showed it to contain cellular debris but no bacteria.

It was found that removal of the cyst would require entering the abdominal cavity. Because we were certain that the cyst did not communicate with the bladder, we felt a more conservative course to be advisable. The cyst cavity was then curetted and treated with a 20 per cent silver nitrate solution. The upper wound was closed and a gauze packing used in the cyst cavity with a small penrose drain along the old sinus to the umbilicus. This drain was removed two days later.

Microscopic sections of the tissue disclosed inflammation and increase of connective tissue with round cell infiltration. An area of small square and columnar epithelium was found arranged in a row. These cells apparently were the remains of the cell lining of the cyst.

The patient's convalescence was uneventful and he was able to leave the hospital two weeks later. The packing in the cyst cavity was renewed every few days for a period of six weeks. The wound was fully healed in about two months.

It is now over eleven years since the operation and there has been no recurrence of symptoms. He has for the last three years supervised government construction in Alaska.

Summary

The urachus, a vestigial remnant, only rarely gives rise to pathological conditions. When disease does occur it is usually in the form of a simple cyst, but occasionally the cyst may be a dermoid. Cysts of the urachus can become malignant. Several cases of carcinoma have been reported.

A cyst of the urachus may remain dormant for years, and only become of surgical importance when infected.

The cause of infection in these cysts is obscure, but its course is probably through the lymphatics or the blood stream.

Diagnosis preoperatively is difficult in the case of a large cyst as it must be differentiated from other abdominal tumors. In the smaller cysts diagnosis should be easier, but is probably overlooked because of its rarity.

Treatment of cysts of the urachus is either complete excision of the cyst or incision and drainage. It is evident that most of the men reporting cases are aware of the dangers of peritonitis when complete removal is attempted. This danger is obvious as noted in the thirty-six cases collected by Kantor, where a death rate of approximately 30 per cent occurred following excision, whereas in contrast, no deaths occurred when incision and drainage were practiced.

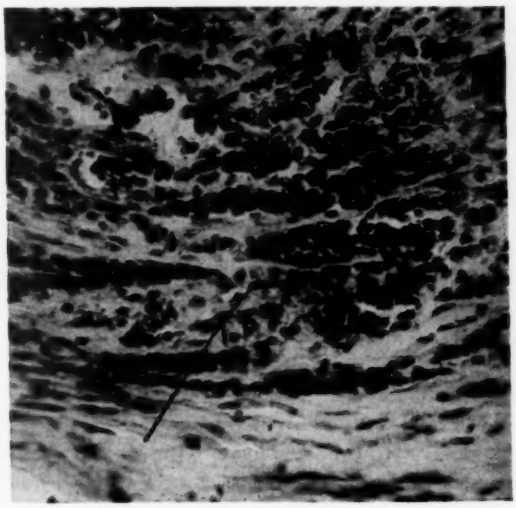


Fig. 4. High power microphotograph. Note dense fibrous wall and lymphocytic infiltration. An area is disclosed showing square type and low columnar epithelial cells arranged in a row which are apparently the remains of the cell lining of the cyst.

Conclusion

A review of the literature on urachal cyst is presented with a description of the anatomy, embryology, histology and pathology. The etiology, diagnosis and treatment are discussed from an analysis of various cases reported and the conclusions arrived at by the

men reporting their findings, and from the knowledge obtained from treating a case which is described in detail.

Bibliography

Archibald, Ronald: Cyst of the urachus. Brit. Med. Jour., 3644:771, (Nov. 8) 1930.

Arey, L. B.: Developmental anatomy, 2nd ed., p. 244. Philadelphia: W. B. Saunders Co., 1931.

Begg, R. C.: Colloid carcinoma of the bladder vault. Brit. Jour. Surg., 18:422, 1931.

Claval and Cavilher: Urachus of the bladder. Case. Lyon Med., 163:159-164, 1939.

Cross, James B.: Cyst of the urachus. Jour. Urol., 33:408, (Apr.) 1935.

Cullen, T. S.: Diseases of the umbilicus. p. 567. Philadelphia: W. B. Saunders Co., 1916.

DeWaard, T.: Two rare cases of cancer of the urachus. Jour. Urol., 42:554, 1939.

Doran, A.: Urachal cyst simulating appendicular abscess. Lancet, 1:1304-1310, 1909.

Douglass, Marion: Urachal cysts and fistulæ. Am. Jour. Surg., 22:557, (Dec.) 1933.

Garvin, E. J.: Patent urachus. Jour. Urol., 42:463, (Sept.) 1939.

Gayet and Varriere: Cyst of the urachus. Lyon Chir., 33: 253, (March and April) 1936.

Gayet, G. and R.: Jour. d'Urol. 46:551-555, (Dec.) 1938.

Gonzalez, E. Pastor, and Gonzales, E. Rioseco: Vesico-umbilical fistula and cyst of persisting urachus. Case. Jour. d'Urol., 47:148-151, (June) 1939.

Kantor, Herman I.: Cysts of the urachus. Report of two cases. Ann. Surg., 109:277, (Feb.) 1939.

Long, John H.: Dermoid cyst of the urachus. Surg. Clin. No. Am., 7:943 (Aug.) 1927.

Long, L.: Cysts of the urachus. Jour. Oklahoma Med. Assn., 24:388, 1931.

Lubash, Samuel: Congenital cyst of the urachus. Am. Jour. Surg., 7:851, 1929.

Padovani, P. and Dufour, A.: Two cases of urachus cysts with umbilical fistula formation. Ann. d'anat. Pathol., Med. chir., 7:234, (Feb.) 1930.

McGregor, Alexander, L.: A synopsis of surgical anatomy. 2nd ed., p. 352. Wm. Wood & Co., 1934.

Pendl, F.: Colloid carcinoma of a urachus cyst. Beitr. z. Klin. Chir., 91:681, 1914.

Tait, L.: Twelve cases of extraperitoneal cysts. Brit. Gynæc. Jour. 2:328, 1886.

Vaughn, G. I.: Patent urachus. Review of cases reported. Jour. A.M.A., 645:649, 1905.

Weiser, W. R.: Cysts of the urachus. Ann. Surg., 44:529, 1906.

Wyburt, J. C., and Lacano Gonzaley, J. C.: Suppurative cysts. Ach. So. Argent. de Anat. Nom. Y Pat., 1:35-43, (Apr.) 1939.

Young, Hugh: Practice of Urology. Vol. 2, p. 58. Philadelphia: W. B. Saunders Co., 1926.

Discussion

DR. A. E. BENJAMIN, Minneapolis: I talked with Dr. Yoerg today about this case of his. I happened to remember I had one or two cases in the past and looking up the records found one rather interesting one. The patient was a woman 42 years of age. She had a very badly displaced uterus and this tumor was rather high in the abdomen. I could not make out that it was connected with the uterus at all. I decided to operate, and, when we got in, found this tumor was a cyst of the urachus. It did not open into the bladder or umbilicus and was not inflamed. After some exploring of the abdomen, I decided to dissect it out. I dissected out the whole urachus and cyst and then did a modified Gillian operation to replace the uterus. She made a very satisfactory recovery and has had no trouble since. The microscope confirmed our diagnosis.

The second patient whom I recall did not have much of a cyst but did have a long discharging sinus extending down to the bladder. This was cured by injecting nitrate of silver, as Dr. Yoerg did in his case.

DR. F. E. B. FOLEY, Saint Paul: Dr. Yoerg is to be congratulated on his excellent and comprehensive description of cysts of the urachus; and the Academy upon acquiring a general surgeon capable of such an erudite presentation of a urologic subject.

It is easy to recognize the obvious; to recognize the obscure marks clinical talent. Diseases of the urachus seem obscure only because of general want of familiarity with urologic subjects and, particularly, urologic embryology.

My first interest in diseases of the urachus was prompted by the New Zealand urologist, J. Campbell Begg, during a visit here several years ago. At that time Mr. Begg was making a comprehensive study and review of the subject, particularly with reference to tumors of the urachus. While in Rochester, he reviewed and analyzed all of the Mayo Clinic cases. While engaged in this study he was my guest and expounded at length on his then current interest. Later, he published a comprehensive paper on the subject which is generally regarded as authoritative. I was surprised that Dr. Yoerg did not refer to this publication.

Cyst formation is only one of the pathologic changes that affect this vestigial remnant. Lesions of the urachus may be classified under three groups: (1) inflammation (of which I have seen three cases); (2) cyst (of which I have seen two cases); and (3), neoplasm (of which I have seen one case).

There may be inflammation of the urachus without cyst formation or cyst not accompanied by inflammation. The inflammatory process usually extends to surrounding structures and presents as a palpable mass in the midline below the umbilicus.

The cysts and associated inflammatory change have been described by Dr. Yoerg.

The commmonest neoplasm is adenocarcinoma.

Dr. Yoerg stated that diagnosis is usually made at operation, and that the first diagnosis was made by Tate, and since then there have been very few correct pre-operative diagnoses. My own experience and that of most urologists is strictly not in accord with these assertions. My own error has been not failure to recognize disease of the urachus but the error of making this diagnosis in cases of other lesions. A small papillary tumor in the vault of the bladder was erroneously diagnosed as a tumor of the urachus simply because of its location. With the exception of a few cases, correct diagnosis of diseases of the urachus is easily made. When a mass is palpable in the abdominal wall below the umbilicus, pathologic change in the urachus should be one of the first things considered. The next thing to consider is cystoscopy. By means of cystoscopy, most lesions of the urachus will be recognized. A localized area of inflammation in the bladder vault is usually an extension of inflammation from the urachus. A polypoid or papillary projection of the mucosa in this location may represent an inflammatory polyp or neoplasm originating in the urachus and projecting or extending into the bladder. The usual neoplasm is adenocarcinoma and needs radical excision. Purulent material exuding from a point in the bladder vault is usually the exudate from an infected urachus with or without cyst formation. Another pathologic condition which may be confused with this and differentiated with difficulty is a diverticulum of the bowel which has attached itself to and ruptured into the vault of the bladder. I observed one such case. There was profuse pyuria, the source of which was a small opening in the bladder vault. Further studies with contrast medium proved that the tentative diagnosis of infected urachus was incorrect and that, actually, there was a diverticulum of the bowel communicating with the bladder.

In the presence of a new and acute inflammatory process, preliminary incision, drainage and curettage may be appropriate—but will not be curative. In all of the cases I have encountered, the inflammatory process was of long standing and in all of these complete excision was successful. In at least one of these cases the peritoneal cavity was soiled with infectious contents but with no untoward effect. When the inflammation is of long standing, the patient has been well vaccinated and soiling of the peritoneum is well borne. Except in cases of sudden, acute inflammation of the urachus, I would be in favor of complete excision as only this will give permanent cure. In cases of

sudden, acute inflammation, possibly with abscess formation, incision and drainage, I should think, would be appropriate but should be regarded as a preliminary measure.

DR. PHILIP DONOHUE, Saint Paul: The urologist may encounter cases representing pathologic conditions of the urachus, and therefore is interested in the subject presented by Dr. Yoerg. My most recent clinical experience was in the case of a 22-month-old boy. This case illustrated the effect of urinary obstruction in the production of pathologic changes in the urachus. Dr. Begg, in his discussion of this phase of the subject, stated that the urachus communicates with the bladder in one-third of normal individuals. The communication may be recognized cystoscopically as a small papilla or indentation in the vault of the bladder. A fold of mucosa or a valve prevents urine from entering the urachus. If obstruction to the bladder occurs, the elevated intravesical pressure will be sufficient to overcome the valve, permitting the introduction of urine and bacteria with development of pathologic changes such as cysts and abscesses.

In the child referred to there was congenital urethral stricture, and large retention of urine in the bladder. The child's condition was poor, due to advanced hydronephrotic change and urinary infection, and immediate cystostomy was indicated. A poorly-defined mass was palpable in the abdominal wall over the distended bladder, and a pathologic condition of the urachus was suspected. The urachus was completely removed. The structure was separated from the peritoneum down to the bladder and then extraperitonealized. The suture line to close the peritoneum was T-shaped. The attachment with the bladder was divided and examination of the intact urachus after excision showed inflammation with abscess formation.

DR. YOERG, in closing: I stated early in my paper that urachal cysts probably occur more often than the small number of reported cases would indicate. This is borne out by the discussion here tonight.

Dr. Benjamin several days ago recalled two cases of probable urachal cysts in his practice, which he was kind enough to report here. The description of his cases fits the condition perfectly.

Begg's paper, referred to by Dr. Foley, is an excellent presentation on the subject. Most of the literature is made up of only case reports.

I agree with Dr. Foley that excision of the cyst is desirable. However, when acute infection is present, incision and drainage is safer. There should be no mortality when incision is performed. If a cure cannot be effected, the cyst can be excised later with much less chance of infecting the peritoneal cavity.

Dr. Donohue spoke of obstruction at the prostatic urethra, and the use of the cystoscope. Obstruction of the outflow of urine undoubtedly causes a back pressure which prevents the normal obliteration of the abdominal portion of the allantois, resulting in a patent urachus, as noted by McGregor.

I want to thank Dr. Gustav Schwyzer for his kind remarks.

The meeting adjourned.

E. V. KENEFICK, M.D.,
Secretary.

According to a survey made by Joseph N. Burroughs of Oakland, California, the birth of children to Rotarians has decreased rapidly since the days of our grandparents. "Present Rotarians," he says, "have an average of 1.71 children, compared with 4.74 for their fathers and 5.68 for their grandfathers."

WOMAN'S AUXILIARY

MRS. JOHN J. RYAN, *President*
Saint Paul, Minnesota
MRS. L. R. BOIES, *Publicity Chairman*
Knollwood, Hopkins, Minnesota

General News

A special meeting of the Auxiliary State Board was called by the president, Mrs. John J. Ryan, on May 7, 1942, in the Lowry Medical Arts Building, Saint Paul. At that time it was decided that the president-elect, Mrs. R. J. Josewski, Stillwater, should go as the delegate to the national convention in Atlantic City and read Minnesota's report.

Mrs. J. M. Reynolds, Minneapolis, chairman of the Revisions Committee, read the new constitution and by-laws for the State Auxiliary and an informal discussion followed. Others who had assisted on the committee were Mrs. E. V. Goltz, Saint Paul, and Mrs. Harold Wahlquist, Minneapolis.

Remember the State Medical Association convention in Duluth, June 29, 30, and July 1, 1942. Plan now for a little vacation then!

County News

Stearns-Benton—The Medical Auxiliary held its regular dinner meeting at the Hayes Hostess House in St. Cloud, April 23, 1942. Mrs. P. E. Barringer, president, presided at the business meeting. Mrs. William Friesleben, finance chairman, announced that the rummage sale and card party given in April had been quite successful.

Members reported that they have supported the Red Cross in many ways: Mrs. Karl Walfred is conducting a class in Home Nursing, with several members taking the course; others are taking courses in First Aid and Nutrition; many are doing sewing and knitting in their homes, Mrs. J. B. McDowell having one thousand hours to her credit in this work. There are still others who are working on the National Women's Defense Program.

The following Nominating Committee will present a state of officers at the next meeting:

Mrs. Karl Walfred, St. Cloud; Mrs. S. J. Raetz, Maple Lake; Mrs. J. J. Gelz, St. Cloud.

The program which followed included a review of the book "The Doctors Mayo" given by Mrs. John Gelz, and a review of the article "How to Relax" taken from *Hygeia* and given by Mrs. P. E. Barringer.

Mrs. F. P. Frisch, Willmar, was a guest at the meeting.

Hennepin—The annual luncheon of the Auxiliary was held at 510 Groveland Avenue, May 1, 1942. Mrs. John Curtin, who has been a splendid social chairman, made the affair a grand finale for the termination of a fine Auxiliary year. Being May Day, there were gay pots of begonias at each place with huge boxes of pansies at the head table. Mrs. F. S. McKinney, president, presided. Eighty-six members were present, and

following the annual reports, a fine slate of officers was elected for next year. Mrs. Henry Quist expressed what everyone sincerely felt—the appreciation of having had such a very fine president in Mrs. McKinney for the past year—her good, fair leadership appealed to all!

The following are the newly elected officers:

President—Mrs. James Johnson
President-elect—Mrs. Harold Wahlquist
First Vice President—Mrs. J. M. Hall
Second Vice President—Mrs. Willard White
Treasurer—Mrs. Frank Bryant
Recording Secretary—Mrs. Charles Merkert
Corresponding Secretary—Mrs. R. F. Erickson
Auditor—Mrs. Henry Quist
Custodian—Mrs. E. G. Nylander

Mrs. J. C. Davis has been appointed Minneapolis commander of the Woman's Field Army of the Minnesota Society for the Control at Cancer. In this post, she recently conducted the sixth annual enlistment drive and educational campaign here.

Red River Valley.—The sixteenth anniversary of the founding of the Auxiliary to the Red River Valley Medical Society was recently observed when members of the Auxiliary gathered at the home of Mrs. M. O. Oppegaard for their annual business meeting, following a dinner session with their husbands.

Mrs. D. V. Boardman of Twin Valley, retiring president, presented a cake, flanked by sixteen candles, and members participated in a candlelighting ceremony honoring officers of the past years, and four charter members who are still active in the organization—Mrs. G. A. Morley, first president; Mrs. J. F. Norman, Mrs. O. L. Bertelson and Mrs. C. L. Oppegaard. A song was offered in tribute to the charter members.

Officers elected were: Mrs. W. G. Paradis, Crookston, president; Mrs. A. Shedlov, Fosston, vice president; Mrs. O. K. Behr, Crookston, recording secretary; Mrs. C. G. Uhley, Crookston, corresponding secretary; Mrs. C. L. Oppegaard, treasurer.

The Auxiliary voted a contribution to the American Field Army for the Control of Cancer and pledged its support to this organization in other ways.

Mrs. Shedlov won score honors at the bridge which followed the business meeting.

Ramsey.—Success is not achieved without effort! A great deal of thought and work were put into the recent successful teas given by Ramsey County Auxiliary.

The tea at the University Club, Saint Paul, in honor of the wives of physicians attending the American College of Physicians convention, was attended by a large number of women. Mrs. E. V. Goltz headed the committee on arrangements. It was a beautiful tea!

Presidents of all women's organizations in Saint Paul were invited to the Public Relations Tea given by Ramsey County Auxiliary. Mrs. Charles W. Wass, public relations chairman, with Mrs. L. W. Barry, were in charge of the event. Assisting her were: Mmes. E. C. Eshelby, C. Harry Ghent, Eugene E. Scott, William Heck, Henry VonderWeyer, Bernard O'Reilly, John A. Lepak, Joseph Bicek, and Herman Kesting. Presiding at the tea table were: Mrs. John J. Ryan, president of the State Auxiliary; Mrs. Mark Ryan, president of Ramsey County Auxiliary; Mrs. George A. Williamson, president-elect of Ramsey County Auxiliary; and Mrs. Carl B. Drake, wife of the president of Ramsey County Medical Society. An original skit which she wrote for the occasion was presented by Mrs. Donald Bacon. Mrs. E. A. Roberts and Mrs. Douglas Brand presented an original dialogue written around the Festival of Nations given recently at the Saint Paul Auditorium. In his talk to the gathering, Dr. H. Z. Giffin of Rochester, president of the State Medical Association, praised the work of the American Society for Control of Cancer. "Your Auxiliary," he said, "will do well to be more closely associated with this organization. When you consider that there are 50,000 deaths a year from cancer, you will realize the importance of efforts to control this disease. To carry on the work, the organization must have money, and your Auxiliary has a fine opportunity for service with the Women's Field Army." In speaking of the need of confining tuberculosis carriers to sanitaria, he said, "These persons are a menace to the community when they are outside an institution. At present there is no law in respect to them. Efforts of the Minnesota Public Health Association in combating tuberculosis are to be commended."

Rice.—Mrs. Arthur W. Neutzman, Faribault, has been reëlected president of the County Auxiliary.

Blue Earth.—The following are the new officers of the Auxiliary:

President—Mrs. A. F. Kemp, Mankato
Vice President—Mrs. J. T. Schlesellman, Mankato
Secretary—Mrs. H. Bradley Troost, Mankato
Treasurer—Mrs. R. Wynn Karney, Mankato

Southwestern Minnesota.—Mrs. B. O. Mork, Jr., Worthington, has been reëlected president of Southwestern Minnesota Medical Auxiliary.

Clay-Becker.—Mrs. C. W. Moberg, Detroit Lakes, is the newly elected president of the County Auxiliary. Other officers are: Mrs. F. D. Thysell, Hawley, vice president; Mrs. S. B. Seipz, Barnesville, secretary-treasurer.

Lyon-Lincoln.—Mrs. W. H. Workman, Tracy, has again been conferred the honor of president.

NO ANTERIOR ARCH

That "anterior metatarsal arch" about which foot specialists talk so learnedly just doesn't exist when the foot is at work, Dr. Herbert Elftman of the College of Physicians and Surgeons, Columbia University, told the meeting. Dr. Elftman has invented an instrument which shows the distribution of weights and pressures on the sole of the functioning foot, and it does not show the existence of an anterior arch at all. It will be necessary, therefore, he said, to re-interpret "fallen metatarsal arches" in terms of differential distribution of pressures among the ends of the metatarsals, or long bones of the foot.

Practical application of his instrument was suggested by Dr. Elftman: "The apparatus used in this investigation offers a rapid method for the accurate evaluation of the functional capacity of the feet and should be useful in determining the suitability of individuals for occupations involving sustained use of the feet."—*Science News Letter*, April 25, 1942.

REPORTS and ANNOUNCEMENTS

MINNESOTA ACADEMY OF OPHTHALMOLOGY AND OTOLARYNGOLOGY

Dr. L. A. Nelson, Saint Paul, is the new president of the Minnesota Academy of Ophthalmology and Otolaryngology. Other officers are: Dr. C. Wilbur Rucker, Rochester, first vice president; Dr. E. D. Risser, Winona, second vice president; Dr. W. A. Kennedy, Saint Paul, secretary-treasurer; Dr. George E. McGeary, Minneapolis, former secretary-treasurer, is chairman of the Council.

MINNESOTA HOSPITAL ASSOCIATION

Dr. Walter Gardner, superintendent of the Anoka State Hospital, was elected president of the Minnesota Hospital Association at the nineteenth annual convention held in Rochester, May 24, 25, and 26.

Other officers named were: Rev. L. B. Benson, superintendent of Bethesda hospital, Saint Paul, president-elect; Sister M. Assumpta, superintendent, Hibbing General hospital, first vice president; Miss Elizabeth McGregor, superintendent, Gillette State hospital, St. Paul, second vice president; and Miss Nellie Gorgas, superintendent, Saint Barnabas hospital, Minneapolis, treasurer.

J. H. Mitchell, manager Colonial hospital, Rochester, was elected delegate to the house of delegates of the American Hospital Association.

Dr. A. F. Branton, of Willmar, was reëlected executive secretary, and Dr. T. E. Broadie, superintendent, Ancker hospital, Saint Paul, was reëlected to the board of directors.

Presiding over the convention sessions was Miss Esther Wolfe of Minneapolis, association president.

Past presidents of the organization were presented with gold keys, this being the twenty-fifth anniversary of the Hospital Association's organization. Eleven past presidents were present to receive their keys: Dr. E. E. Mariette of Glen Lake Sanatorium, Oak Terrace; J. J. Drummond of Worrall hospital, Rochester; Paul H. Fesler of Nopeming sanatorium, Nopeming; Joseph J. Norby of Columbia hospital, Milwaukee; J. H. Mitchell of Colonial hospital, Rochester; Victor M. Anderson of Abbott hospital, Minneapolis; Dr. A. F. Branton of Willmar clinic, Willmar; Dr. Peter D. Ward, of Charles T. Miller hospital, Saint Paul; A. G. Stasel of Eitel hospital, Minneapolis, and R. M. Amberg of University hospital, Minneapolis.

G. W. Olson, administrator of Queen's Hospital in Honolulu, first president, sent greetings by radiogram.

Among medical men participating in the convention program were: Dr. Branton who presented a short history of the Minnesota Hospital Association; Dr. F. H. Krusen, Rochester, who spoke on "The War Emergency Course in Physiotherapy"; Dr. L. H. Wright of New York City, "The Anesthetist"; Dr. Basil C. MacLean of Strong Memorial Hospital in Rochester, New York, president of the American Hospital Association; Dr. Bert Caldwell, executive secretary of the American Hospital Association, "We, The Hospitals"; Col. Wallace D. Hunt, M.D., Chief of the Medical Defense Area, Omaha; Dr. Malcolm T. MacEachern of Chicago, associate director of the American College of Surgeons who urged preparation of hospitals for any civilian defense emergency; Dr. B. F. Smith, superintendent of the State Hospital at Rochester.

Dr. Walter Judd of Minneapolis, former medical missionary in China, addressed the convention's annual banquet on "Eastern Affairs." Dr. Judd was introduced by Dr. Patrick Wu of Rochester, only Chinese to be a member of the American College of Surgeons. Dr. Charles W. Mayo introduced Dr. Wu.

Several allied groups met in conjunction with the convention.

MINNESOTA MENTAL HYGIENE SOCIETY

Rev. Edgar F. Witte of Saint Paul was elected president of the Minnesota Mental Hygiene Society, May 26, at its annual meeting in Coffman Memorial Union on the University of Minnesota campus.

Other officers named were Dr. Philip H. Heersema of Rochester, vice president; Mrs. Carl Lefevre, Minneapolis, secretary; Ralph Helstein, Minneapolis, treasurer.

Named to the directorate were Drs. R. E. Nutting, Duluth, D. E. McBroom, Saint Paul, and Starke R. Hathaway, University of Minnesota.

The executive committee will consist of the four officers together with Dr. Hathaway, Dr. H. M. Keith of Rochester, Dr. Alex Blumstein of Minneapolis, Mrs. Paul Myers of Saint Paul, Miss Anne Starks and Miss Brenda Fischer, both of Minneapolis.

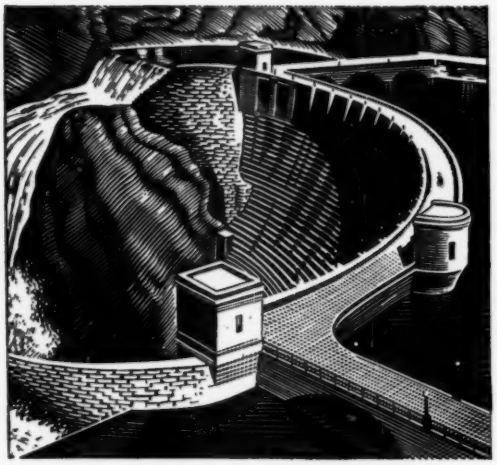
AMERICAN CONGRESS OF PHYSICAL THERAPY

The American Congress of Physical Therapy will hold its twenty-first annual scientific and clinical session September 9, 10, 11 and 12, 1942 inclusive, at the Hotel William Penn, Pittsburgh, Pa.

The annual instruction course will be held from 8:00 to 10:30 a.m., and from 1:00 to 2 p.m. during the days of September 9, 10 and 11 and will include a round-table discussion group from 9:00 to 10:30 a.m., Thursday, September 10.

The scientific and clinical sessions will be given on the remaining portions of these days and Saturday morning. A new feature will be an hour demonstration showing technique from 5:00 to 6:00 p.m. during the days of September 9, 10 and 11.

All of these sessions and the seminar will be open to the members of the regular medical profession and



"RELIEVE BACK PRESSURE"

When the back-water of the dam gets too high, the sluice-gate is opened and the lake level is dropped to a safe stage.

The arrhythmic heart is prone to produce a potentially dangerous venous congestion. DIGIFOLIN, "Ciba" by slowing down the rate, eliminating weak, ineffectual contractions, which take place before the ventricles have filled, causes a marked increase in the minute volume output of the heart, thus relieving this "back pressure."

DIGIFOLIN* can be administered orally, intravenously, intramuscularly or rectally in congestive failure, auricular fibrillation and certain other myocardial states. One tablet, one cc. of liquid or one ampule of DIGIFOLIN is equivalent to one cat unit (Hatcher and Brody method).

*Trade Mark Reg. U. S. Pat. Off.
Word "Digifolin" identifies the product as digitalis glucosides of Ciba's manufacture.

CIBA PHARMACEUTICAL PRODUCTS, INC.
Summit New Jersey

their qualified aids. For information concerning the seminar and program of the convention proper, address the American Congress of Physical Therapy, 30 North Michigan Avenue, Chicago, Illinois.

HENNEPIN COUNTY SOCIETY

New officers of the Hennepin County Medical Society were announced at the organization's meeting, May 4, which was addressed by Dr. Leverett D. Bristol, health director of the American Telephone & Telegraph Company. His subject was "Health and Safety of Wartime Workers."

The officers are: Dr. Willard David White, president; Dr. Ivar Sivertsen, first vice president; and Dr. Arthur H. McFarland, second vice president.

Dr. Thomas J. Kinsella and Dr. Ernest L. Meland were named to the executive committee; Dr. McFarland and Dr. Charles N. Spratt, board of censors; Dr. Russell W. Morse and Dr. Otto W. Yoerg, board of trustees; and Dr. Axel E. Hedback and Dr. Kinsella, ethics committee.

Named as delegates to the Minnesota State Medical Association were Drs. Chauncey A. McKinlay, Kenneth H. Phelps, Ray R. Knight, Lawrence F. Richdorf, and Thurston W. Weum. Alternates are: Drs. William H. Aurand, Adam M. Smith, Joseph C. Michael, Frank R. Hirshfield and Moses Barron.

MINNEAPOLIS SURGICAL SOCIETY

Officers of the Minneapolis Surgical Society for 1942-43 are: Dr. Richard R. Cranmer, president; Dr. H. O. McPheeters, vice president; and Dr. Robert F. McGandy, secretary-treasurer.

Members of the Executive Council include, besides the officers: Dr. Arthur Bratrud, retiring president; and Drs. R. C. Webb, Henry M. Lee, S. R. Maxeiner, William A. Hanson and Otto Yoerg.

WASHINGTON COUNTY SOCIETY

The Washington County Medical Society held its regular monthly meeting May 12, 6:30 p.m., at the White Pine Inn, Bayport, Minnesota.

The guest speaker, Merritt W. Wheeler, M.D., of Saint Paul, told of the "Anatomy, Pathology, Surgical Steps and Reasons Therefore", as his colored movies of external sinus operations were being run; he cited cases and results and answered numerous questions, which were all very interesting and instructive.

The Washington County Medical Society has now completed the vaccination against smallpox and diphtheria immunization in all the schools in the county. The enthusiastic coöperation of Mr. Guy D. Smith for the city schools in Stillwater and Mrs. Grace McAlpine, County Superintendent of Schools and the willing enthusiastic help of all the teachers made this possible.

The county's Health Relations Committee is now planning for further closer coöperation with the Parent-Teacher Association.

OF GENERAL INTEREST

Dr. F. H. Rollins of St. Charles was reëlected to the St. Charles board of education last month.

* * *

A son was born to Dr. and Mrs. Burtrum C. Schiele of Minneapolis, April 21.

* * *

Dr. and Mrs. R. D. Davis of Clearbrook announce the birth of a son, April 24.

* * *

Twins, a son and a daughter, were born to Dr. and Mrs. Cyrus O. Hansen of Minneapolis, May 7.

* * *

Dr. and Mrs. Charles E. McLennan of Minneapolis are the parents of a daughter, Nancy Ann, born May 3.

* * *

Born to Dr. and Mrs. Carl O. Rice of Minneapolis, a daughter, Sara-Jae Gronna, March 28.

* * *

A daughter was born to Dr. and Mrs. Leonard A. Lang of Minneapolis, May 12.

* * *

Dr. and Mrs. D. Kalinoff of Stillwater returned in April from a visit in the South. Their daughter, Helen, was operated upon for appendicitis on May 8.

* * *

Dr. William F. Braasch of Rochester is state chairman of the Procurement and Assignment Service, medical doctors section.

* * *

Dr. William Gjerde of Staples was recently promoted to the rank of captain, Medical Corps, at the Aviation School at Randolph Field, Texas.

* * *

Dr. Nathan J. Berkwitz of Minneapolis was in Boston, May 19, to present a paper before a meeting of the American Psychiatric Association.

* * *

Among those recently certified by the American Board of Surgery are Drs. Donald C. MacKinnon, Hamlin A. N. Mattson, and Louis Sperling of Minneapolis.

* * *

Dr. R. B. Potter has taken over the practice of the late Dr. W. W. Moir in the Nicollet and Lake Medical Building, Minneapolis. He has been in this location since Dr. Moir's death in February.

* * *

Dr. James Doyle Ryan of Fairfax became associated in practice with Dr. C. J. Henry in Milaca, May 15. A graduate of the Saint Louis University, he interned at Saint Luke's hospital in Minneapolis.

* * *

Married May 10 in Saint Paul were Miss Bernis Nides of Hibbing and Dr. Victor J. Birnberg. Dr. Birnberg is the son of Dr. and Mrs. Ansel N. Birnberg of Saint Paul and White Bear Lake. The couple will make their home in Saint Paul.

Dr. Ruth E. Boynton, director of the Students' Health Service at the University of Minnesota, was elected a member of the board of directors of the Minnesota League of Women Voters at the recent annual meeting.

* * *

Dr. Owen H. Wangensteen of Minneapolis, head of the department of surgery at the University of Minnesota Medical School, addressed the Chicago Surgical Society, May 1, on the subject "The Surgical Aspects of Peptic Ulcer."

* * *

From the Chinese Army on the eastern front in Burma comes news of a Minnesota doctor, Captain Donald M. O'Hara of Janesville. Captain O'Hara is working with the fabulous surgeon-missionary, Dr. Gordon S. Seagrave.

* * *

Dr. Joseph Berkson of Rochester has been assigned to the office of the air surgeon of the United States Army air forces in Washington, D. C. He will be in charge of medical statistics in the air surgeon's office and will have the rank of major.

* * *

Dr. Wesley W. Spink, associate professor of medicine at the University of Minnesota Medical School, was elected secretary of the American Society for Clinical Investigation at its meeting in Atlantic City last month.

* * *

Minneapolis doctors who have entered the military service include Dr. Vernon L. Hart and Dr. Delph T. Stromgren. Dr. John H. Moe will continue the practice of Dr. Hart, and Drs. H. P. Linner and E. H. Dunlap will continue for Dr. Stromgren.

* * *

Dr. Arnold Settlage, former staff member of the Worthington Clinic in Worthington, is now attached to the recruit reception center at Fort Devens, Massachusetts. He is a first lieutenant in the Army Medical Corps.

* * *

Among papers presented at the thirty-fourth annual meeting of the American Society for Clinical Investigation in Atlantic City, May 4, was one on "The Effect of Promin on the Blood of Tuberculosis Patients" by Drs. Byron E. Hall, Horton C. Hinshaw of Rochester and Dr. Karl H. Pfuetze of Cannon Falls.

* * *

Dr. William T. Peyton, director of the division of neurosurgery at the University of Minnesota Medical School, presented a paper, "The Relief of Intractable Pain," at the annual meeting of the Nebraska State Medical Association in Omaha, May 4-5.

Also on the program was Dr. Henry W. Woltman of Rochester. His paper was entitled "Postoperative Neurologic Complications."

Dr. Harold I. Lillie of Rochester was named first vice president of the American Laryngological Association at its meeting in Atlantic City, New Jersey, last month. Dr. Charles J. Imperatori of New York was elected president.

* * *

Among speakers at the forty-eighth annual session of the American Laryngological, Rhinological and Otological Society, held in Atlantic City, New Jersey, June 1-3, was Dr. Gordon B. New of Rochester. His subject was "The Treatment of Congenital Cysts of the Larynx."

* * *

Dr. William E. Proffitt, Jr., of Minneapolis, former University of Minnesota halfback, reported for duty with the Army Medical Corps at San Luis Obispo, California, May 11. He is a first lieutenant. Dr. Proffitt starred on the 1934 national championship football team.

* * *

Dr. Donald Duncan, a graduate of the University of Minnesota Medical School, has been appointed professor and head of the department of anatomy at the University of Buffalo Medical School in Buffalo, New York. Dr. Duncan, who has been with the University of Texas, formerly taught in the medical schools of Minnesota, Buffalo and Utah universities.

* * *

At the ninth annual meeting of the American Rheumatism Association to be held in Atlantic City, New Jersey, June 8, a paper, "An Analysis of the Manner of Death Among Thirty Patients with Rheumatoid Arthritis," was presented by Drs. Edward F. Rosenberg, Archie H. Baggenstoss and Philip S. Hench of Rochester.

* * *

Among new Fellows in the Mayo Foundation at Rochester is Dr. John A. Tweedy of Winona. A graduate of the University of Minnesota Medical School, he interned at the Charles T. Miller hospital in Saint Paul 1936-37. Since December 1937, he has been in practice and on the staff of the Winona General Hospital.

* * *

Dr. A. G. Liedloff of Mankato was reëlected chairman of the executive board of the Blue Earth County Public Health Association at its annual meeting, May 14. Dr. William A. O'Brien, director of postgraduate medical education at the University of Minnesota, was principal speaker. His subject was "Recent Advances in Public Health."

* * *

The Minnesota Human Serum Laboratory has been called to active duty by the Minnesota State Guard, and will be known as the First Medical Detachment of the Minnesota State Guard.

Its function will be to prepare a reserve of human serum to be used by military and civilian organizations in the state in case of bombing or sabotage.

Dr. Paul F. Dwan of Minneapolis is commanding officer with the rank of major.

Herald R. Cox, ScD., associate bacteriologist with the United States Public Health Service, stationed at the laboratory in Hamilton, Montana, delivered the second annual *Journal-Lancet* lecture at the University of Minnesota Medical School, Minneapolis, May 22. His subject was "Typhus Fever, with Special Reference to Epidemiology and Immunity."

* * *

Regulations for the administration of the Blood and Plasma Bank Program of the Medical Division of the United States Office of Civilian Defense have now been prescribed, and funds are available for grants to assist approved hospitals in establishing blood and plasma banks. Only hospitals within 300 miles of the Atlantic, Pacific or Gulf coasts are eligible for such grants.

* * *

A grant of $30,000 from the W. D. Kellogg Foundation at Battle Creek, Michigan, has been accepted by President Walter C. Coffey of the University of Minnesota, for the use of students in medicine, dentistry and public health. The money will be used to aid students who usually earn their tuition by working summers. Because of the accelerated program which eliminates summer vacations, this is no longer possible.

* * *

Dr. Edgar W. Bedford of Minneapolis moved his offices last month into his newly constructed clinic building at 2862 Hennepin Avenue.

The one-story building, which will also house offices of two dentists, has a full basement, most of which is given over to laboratories. Reception and consultation rooms on the main floor are paneled with Philippine mahogany. A large parking place is provided for at the rear of the building.

* * *

Presiding at the thirty-second annual meeting of the medical section, American Life Insurance convention held in Colorado Springs, Colorado, June 4-6, was Dr. Thomas N. Dickson of Saint Paul, medical director of the Minnesota Mutual Life Insurance Company.

Dr. Dickson was elected vice chairman of the medical section last June and became chairman in April following the death of Dr. W. F. Blackford of Louisville, Kentucky.

* * *

Dr. William A. O'Brien, professor of preventive medicine and public health and director of postgraduate medical education at the University of Minnesota, delivered the commencement address at high school graduation exercises in New London, May 27, and at Hendricks, May 28.

He also was commencement speaker at the exercises of St. Mary's School of Nursing in Minneapolis, May 10.

* * *

Appointment of Dr. Albert G. Schulze, Saint Paul physician, as a member of the Ramsey County Welfare Board, is announced by Mayor John McDonough. The appointment is for the unexpired term of the late Dr. C. F. McNevin, which ends July 1, 1943.

Dr. Schulze has served as president and secretary

BIOLAC is complete and replete...

...because there is no lack in Biolac, except for vitamin C. Biolac feedings provide amply for all other nutritional requirements of the normal young infant, and no additional formula ingredients or supplements are necessary. It's an improved evaporated-type infant food with breast-like nutritional and digestional advantages. It is a complete formula, replete with nutritional values. Biolac is prepared from whole milk, skim milk, lactose, vitamin B_1, concentrates of vitamins A and D from cod liver oil, and ferric citrate.

Why BIOLAC is increasingly popular:

- Ample provision for high protein needs of early months
- Reduced fat for greater ease in digestion
- Enriched with vitamins A, B_1, D and iron
- All needed carbohydrate present as Lactose
- Sterilized for formula safety
- Homogenized to improve digestibility
- Easy to prescribe
- Convenient for mothers to use
- Economical: because it's complete

Prescribe Biolac in your next feeding case. Professional literature on request. Write Borden's Prescription Products Division, 350 Madison Ave., New York, N. Y.

Borden's **BIOLAC**

A BORDEN PRESCRIPTION PRODUCT

of the Ramsey County Medical Society, and is a member of the Minnesota State Board of Health. He heads the obstetrics and gynecology department of Ancker Hospital.

* * *

When the North Dakota State Medical Association held its annual meeting in Jamestown, May 18-20, the program included papers by Dr. Erling S. Platou, Minneapolis, "Pediatrics"; Dr. Stanley R. Maxeiner, Minneapolis, "Fractures"; Dr. Lawrence R. Boies, Minneapolis, "Symptom of Headache"; and Dr. Gordon R. Kamman, Saint Paul, "The Depressed Patient."

Dr. Edward C. Rosenow of Rochester participated in a symposium on "Infectious Encephalomyelitis."

* * *

Dr. Harold S. Diehl, dean of medical sciences at the University of Minnesota, has been named chairman of the newly organized Committee on Allocation of Medical Personnel under the Procurement and Assignment Service for Physicians, Dentists and Veterinarians of which he is a member of the board.

Dr. Diehl attended a meeting of the new committee in Washington, D. C., May 17, and a meeting of the directors' board of the Procurement and Assignment Service, May 18.

* * *

The University of Minnesota Medical School has instituted two new courses for senior medical students in anticipation of their entering military service following completion of their internships.

The courses are: War Medicine, which will consist of a series of lectures by specialists in the field, to be given from 8 to 9 a.m., Mondays, Wednesdays and Fridays during the summer session; and Tropical Medicine, which will be given during the fall and winter quarters, Mondays and Wednesdays from 3 to 4 p.m.

* * *

Dr. John L. Rothrock of Saint Paul recently received the highest honor conferred by Gettysburg College at Gettysburg, Pennsylvania, on its alumni at a ceremony there. He was presented the Alumni Meritorious Service award.

Graduated from the college in 1885, Dr. Rothrock practiced medicine in Saint Paul from 1890 until 1936 when he retired. He was on the staff of the University of Minnesota Medical School from 1895 to 1936, when he was made professor emeritus of obstetrics and gynecology.

* * *

Dr. Henry F. Helmholz of Rochester was awarded the Minnesota Public Health Association's Christmas Seal distinguished service plaque, May 22, in connection with the ceremony honoring Olmsted County for its tuberculosis record. The plaque was presented him for his public health and Christmas Seal work in Olmsted County over the past twenty years.

Only two other Minnesotans have previously been given the award, presentation of which was made by Dr. E. A. Meyerding, executive secretary of the Minnesota Public Health Association.

Courses for physicians in the Kenny technique for the management of acute phase of poliomyelitis, will be given at the University of Minnesota Center for Continuation Study June 1-6, July 6-11 and August 10-15.

Courses for nurses in the application of hot foments will also be given at the Center, June 15-20 and July 13-18. The first of this series for nurses was held May 25-29.

In addition to these courses, technicians are being trained in periods of two to six months' duration.

Dr. Miland E. Knapp is Director of Training Courses in Kenny Technique.

* * *

Dr. George E. Holm, biochemist with the bureau of dairy industry, United States Department of Agriculture, Washington, since 1920, has been awarded the Borden Company prize of $1,000 in recognition of "his contributions to the understanding of the basic causes and the control of oxidative deterioration of fats and oils, and to the prevention of spoilage of dairy products caused by the oxidation of milk fat." The prize is awarded through the American Chemical Society for "outstanding research in the chemistry of milk."

Dr. Holm received his Ph.D. from the University of Minnesota in 1919.

* * *

Minneapolis physicians who have reported for duty with the United States Navy include Dr. Kenneth E. Fritzell and Dr. Philip A. Arling who have joined the Minneapolis delegation at Great Lakes Naval Training Station.

Dr. William P. Sadler, lieutenant commander, has reported for duty at the Norfolk Navy Yard. His entering the service made it impossible for him to accept an invitation to deliver the commencement address at the Van Buren (Arkansas) High School. Dr. Sadler rates with Bob Burns as one of the most distinguished sons of that school.

* * *

To break the "bottleneck" of procuring birth certificates for defense work, the Minnesota Board of Health has assigned Dr. D. A. Dukelow of Minneapolis, director of Public Health Education, to take active charge of the division of vital statistics.

Appointment of Dr. Dukelow was made upon recommendation of a board of health committee, composed of Dr. Ruth E. Boynton and Professor F. E. Bass of the University of Minnesota.

More than 7,500 applications for birth certificates have piled up as a result of persons either enlisting in the military services or applying for employment in war industries, where proof of citizenship is required.

* * *

Among those who addressed the special course in obstetrics given at the University of Minnesota Center for Continuation Study, May 11-16, were Dr. John H. Moore of Grand Forks, North Dakota, president of the Central Association of Obstetrics and Gynecology, and Dr. Ralph A. Reis, assistant professor of obstetrics

and gynecology at the Northwestern University Medical School.

The course was attended by a group of physicians from North Dakota and South Dakota, sent by their state health departments. In attendance the last three days were a group of Minnesota physicians, sent by the State Department of Health.

* * *

So that adequate medical aid will be available in case of any war emergency, ranging from an air raid to an industrial accident in a war plant, Saint Paul has set up a Medical Civilian Defense Committee, headed by Dr. Robert Schoch, city health officer.

This committee is directing the coördination of the work of civil authorities, hospitals, medical and nursing groups, and is preparing for hospital field units, casualty stations and decontamination stations. A complete emergency field unit has already been set up at four hospitals; twenty-three district casualty stations have been designated; and fifty buildings have been made available as decontamination stations where victims of gas attacks could be treated.

* * *

An honorary degree of LL.D. was conferred upon Dr. O. J. Hagen of Moorhead at the Fiftieth Anniversary Commencement of Concordia College, Moorhead, June 2.

Dr. Hagen was a former instructor at the college, and for ten years a member of its Board of Trustees. Among the various positions of responsibility Dr. Hagen has held are: president of the Minnesota Public Health Association, member of the Minnesota State Board of Health, member of the Board of Regents of the University of Minnesota. In 1936, he was elected to the presidency of the National Governing Board of State Universities and Allied Institutions, and in 1941 was made a fellow of the International College of Surgeons at Mexico City.

* * *

Dr. and Mrs. Joseph B. Friberg, formerly of Saint Paul, are on their way to Tanganyika Territory in the interior of Africa where they will serve as medical missionaries to 300,000 natives. They will be stationed at the town of Iambi. Their service in Africa will be under the auspices of the Board of Foreign Missions of the Augustana Lutheran synod which has headquarters in Minneapolis.

Born in China, son of missionary parents, Dr. Friberg was graduated from the University of Minnesota Medical School. He served his internship at Miller Hospital and practiced medicine in Saint Paul before accepting his new appointment. Mrs. Friberg is a graduate of the University of Minnesota School of Nursing.

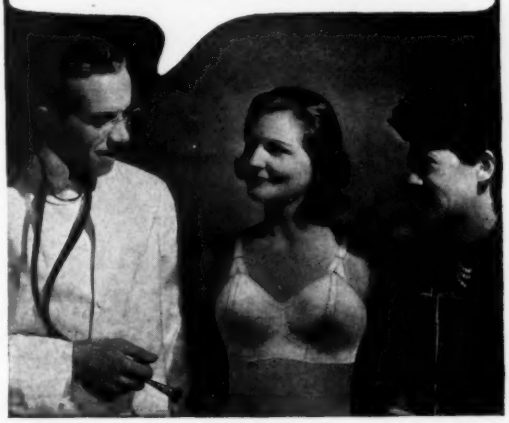
* * *

Captain John H. Grindlay of Rochester, former Mayo Foundation fellow, was one of the group of twenty-six foot-weary American physicians, civilians and military men who marched out of Burma into India with Lieutenant General Joseph H. Stilwell.

An Associated Press dispatch from New Delhi dis-

"EUREKA, I BELIEVE THIS IS IT!" *Said*

A Doctor When He Saw This New Spencer Brassiere



A physician, after seeing a demonstration of the new Spencer Uplift Brassiere on one of his patients, exclaimed, "Eureka, I believe this is it!" He had been seeking a Brassiere that would adequately support heavy breasts, without compression.

This new Spencer Brassiere is *individually designed*, cut and made for the one patient who is to wear it. It supports and holds the breasts in natural position, thus improving the circulation of the blood through the breasts.

When worn during pregnancy, this new Brassiere helps prevent outer skin from stretching and breaking. During the nursing period, it helps prevent caking.

Special Sleeping Brassieres Augment Day-Time Treatment

This new Brassiere may also be designed for wear during sleeping hours, so that your prescribed treatment will be constant. It is designed to permit automatic adjustment to the turning and twisting of the body during sleep, yet provides positive uplift for the breasts.

For service at your office, the hospital or patient's home, look in telephone book under "Spencer Corsetiere" or write direct to us.

MAY WE SEND YOU THIS BOOKLET?

SPENCER ***INDIVIDUALLY DESIGNED***
SUPPORTS **Abdominal and Back Supports - Breast Supports**

HOW SPENCER SUPPORTS AID THE DOCTOR'S TREATMENT

SPENCER CORSET COMPANY, Inc.
129 Derby Ave., New Haven, Conn.
In Canada: Rock Island, Quebec.
In England: Spencer (Banbury) Ltd., Banbury, Oxon.

Please send me booklet, "How Spencer Supports Aid the Doctor's Treatment."

.....M. D.

Address.....

.....O-2

Pentobarbital Sodium has justly gained wide professional acceptance, not merely because it is probably the most widely investigated barbiturate, but mainly because it offers these advantageous properties:

It is effective in small dosage, yet there is a relatively wide margin of safety between therapeutic dosage and the minimum lethal dose. * * * Induction of sleep is prompt, yet gradual. Within 30 minutes after administration the patient becomes drowsy, and sleep sets in. * * * Since Pentobarbital Sodium is destroyed in the body with comparative rapidity, the induced sleep is of relatively brief duration, six to eight hours. * * * With proper regulation of dosage there is rarely any post-sleep depression—the patient usually wakes refreshed, clearheaded, as from normal sleep of similar duration.

Pentobarbital Sodium finds many uses—in sleeplessness or insomnia; for preanesthetic sedation in surgery; for amnesia and analgesia in obstetrics; in hyperemesis gravidarum; in eclampsia, neurasthenia, neuroses, hysteria, delirium tremens. In conjunction with analgesics and narcotics, whose action it enhances, it is of value in combating the pain of neuralgia.

Pentobarbital Sodium (Gane), manufactured by Gane's Chemical Works for the pharmaceutical industry, is available to the medical profession through many pharmaceutical houses at prices which compare more than favorably with those of other sedative and hypnotic drugs.

GANE'S CHEMICAL WORKS, Inc.
Manufacturing Chemists
43 WEST 16TH STREET NEW YORK, N.Y.

closed that the former Rochester physician was among the Americans who journeyed 104 miles legging it through jungles, across steaming rivers and among head-hunting Burmese to reach India. Most of the time they were just a couple of jumps ahead of the Japanese.

Leaving Rochester in November, 1940, Captain Grindlay went to the Walter Reed General Hospital Army Medical Center at Washington.

* * *

In a move to cut red tape and to commission additional medical officers as rapidly as possible, the Army last month opened an office in Saint Paul to recruit doctors and dentists from Minnesota. The office is at 496 Lowry Medical Arts Building, adjoining offices of the Minnesota State Medical Association and the State Dental Association.

In charge are Major C. A. Wood of Fort Leavenworth, Kansas, and Major Baptiste Groebner of Fort Snelling.

Through regulations unique in Army procedure, the two officers are empowered to put through commissions in three or four days, as compared with the usual average of three months. They will make final decisions on the spot and administer oaths of service.

Men accepted will be given time to wind up their affairs before reporting for duty.

The office will be the only one of its type in Minnesota.

About 500 Minnesota physicians have been classed as "available" for military service by committees functioning under the Procurement and Assignment Service, according to Col. J. E. Nelson, state selective service director.

* * *

Endowed with the income of a fund of more than $100,000 left to the University of Minnesota by the late Dr. Charles F. Dight of Minneapolis, the Charles Fremont Dight Institute for the Promotion of Human Genetics is now in operation on the University of Minnesota campus.

Dr. Clarence P. Oliver is its director. Among members of the institute committee is Dr. Eric Kent Clarke, director of the Psychiatric Clinic for Children.

Studies within the field of genetics and eugenics will be directed particularly at present to "a search for traits, such as metabolic disturbances, which may have genetic bases, but are not recognized as hereditary traits."

Family data and records bearing on the inheritance of defects would be greatly appreciated by the Institute. Among family records particularly desired are those on nervous disorders, blindness, dental defects, blood diseases, twins and long-lived families.

First lecture under the auspices of the Institute was

delivered April 10 when Dr. Philip Levine of the Newark Beth Israel Hospital in Newark, New Jersey, discussed "Serological Differentiations of Human Blood."

* * *

An In-Service Health Training Program for teachers of rural schools in Saint Louis County was concluded last month. It consisted of five sessions. Speakers included several physicians.

At the first meeting Dr. E. L. Tuohy of Duluth, chairman of Public Health Education, Minnesota State Medical Association, spoke on "General Orientation"; Drs. Charles B. Cunningham and Walter S. Neff, both of Virginia, and Drs. Selma Mueller and W. E. Hatch of Duluth, spoke on "The Teacher's Health."

Dr. Viktor O. Wilson of Minneapolis, director of the Division of Child Hygiene, Minnesota State Department of Health, spoke on "Educational Aspects of School Health Services" at the second session; while Dr. Donald A. Dukelow of Minneapolis, director of public health education, State Department of Health, discussed "Health Education."

Included on the program for the third session were Dr. C. A. Scherer, county health officer of Saint Louis County, who had for his topic, "Environmental Health" and Dr. A. T. Laird, superintendent of Nopeming Sanatorium, Nopeming, who spoke on "Tuberculosis."

At the fourth session, Dr. Mario Fischer, director of public health, Duluth, discussed "A Communicable Disease Control Program."

The final session, a dinner meeting, was held May 1. Dr. C. M. Jessico of Duluth, spoke on "Mental Hygiene" and Dr. W. A. O'Brien, director of postgraduate medical education at the University of Minnesota, presented a summary.

* * *

A large number of Minnesota physicians will participate in the ninety-third annual session of the American Medical Association in Atlantic City, June 8-12.

Minnesota members of the House of Delegates are: Drs. A. W. Adson of Rochester, James M. Hayes of

PHYSICIANS AND HOSPITALS SUPPLY CO., Inc.
414 SOUTH SIXTH ST., MINNEAPOLIS, MINN.
INSTRUMENTS · TRUSSES · EQUIPMENT · PHARMACEUTICALS · DRUGS
MAIN 2494

In Congestive Heart Failure

Theocalcin

(theobromine-calcium salicylate)

To diminish dyspnea, reduce edema and increase the efficiency of the heart action, prescribe Theocalcin in doses of 1 to 3 tablets, t. i. d., with meals. It acts as a potent diuretic and myocardial stimulant.

Tablets 7½ grains each, also Theocalcin powder.

KNOLL BILHUBER

BILHUBER-KNOLL CORP. ORANGE, NEW JERSEY.

PROFESSIONAL PROTECTION

SINCE 1899 SPECIALIZED SERVICE

In addition to our Professional Liability Policy for private practice we issue a special
MILITARY POLICY
to the profession in the Armed Forces at a
REDUCED PREMIUM

THE
MEDICAL PROTECTIVE COMPANY
OF
FORT WAYNE, INDIANA

Cook County Graduate School of Medicine
(In Affiliation with Cook County Hospital)
Incorporated not for profit
ANNOUNCES CONTINUOUS COURSES

SURGERY—Two Weeks Intensive Course In Surgical Technique with practice on living tissue, every two weeks throughout the year. General Courses One, Two, Three and Six Months; Clinical Courses; Special Courses.

MEDICINE—Two Weeks Intensive Course will be offered starting October 5. Two Weeks Course in Gastro-Enterology will be offered starting October 19. Two Weeks Intensive Course in Electrocardiography and Heart Disease starting August 3.

FRACTURES & TRAUMATIC SURGERY—Two Weeks Intensive Course will be offered starting June 29 and September 21. Informal Course available every week.

GYNECOLOGY—Two Weeks Intensive Course will be offered starting October 5. One Month Personal Course starting August 3. Clinical and Diagnostic Courses every week.

OBSTETRICS—Two Weeks Intensive Course will be offered starting September 21. Three Weeks Course starting August 10. Informal Course every week.

OTOLARYNGOLOGY—Two Weeks Intensive Course will be offered starting September 14. Clinical and Special Courses every week.

OPHTHALMOLOGY—Two Weeks Intensive Course will be offered starting September 28. Five Weeks Course in Refraction Methods starting October 19. Informal Course every week.

General, Intensive and Special Courses in All Branches of Medicine, Surgery and the Specialties.

TEACHING FACULTY — ATTENDING STAFF OF COOK COUNTY HOSPITAL
Address: Registrar, 427 S. Honore St., Chicago, Ill.

Minneapolis, W. A. Coventry of Duluth and Francis J. Savage of Saint Paul.

Dr. Louis A. Buie of Rochester is a delegate from the Section of Gastro-enterology and Proctology.

Among the speakers at the General Scientific meetings will be Dr. Wallace H. Cole of Saint Paul, who will present a paper on June 9, "An Evaluation of the Kenny Treatment of Poliomyelitis."

Dr. Fred W. Rankin of Lexington, Kentucky, formerly of Rochester, will be installed as president at the opening general meeting, June 9.

Minnesota people, who will take part in the programs of the various sections, follow:

Section on Practice of Medicine (Joint meeting with Section on Experimental Medicine and Therapeutics of which Dr. Edgar V. Allen, Rochester, is section secretary): Paper, "Dicoumarin [3,3'-Methylene-Bis-(4-Hydroxycoumarin)]"—Experimental Studies by Drs. Jesse L. Bollman and F. W. Preston of Rochester; Clinical Studies by Drs. Edgar V. Allen, Nelson W. Barker and John M. Waugh of Rochester. Paper, "An Analysis of the Operative Treatment of Patent Ductus Arteriosus," by Drs. M. J. Shapiro and Ancel B. Keys of Minneapolis.

Section on Surgery, General and Abdominal: Discussions by Dr. C. W. Mayo, Dr. E. V. Allen and Dr. James C. Masson of Rochester. Paper, "Is the Asthmatic Patient a Good Surgical Risk?" by Drs. F. W. Gaarde, L. E. Prickman and H. J. Raszkowski, Rochester.

Section on Obstetrics and Gynecology: Paper, "Conservative Treatment of Inversion of the Uterus," by Drs. Charles E. McLennan and John L. McKelvey of Minneapolis with discussion by Dr. W. A. Coventry of Duluth. Discussion of a paper, Dr. Virgil S. Counseller of Rochester.

Section on Ophthalmology: Paper, "Neuropsychiatric Geriatrics" by Dr. Henry W. Woltman of Rochester. Discussion of a paper, Dr. William L. Benedict, Rochester.

Section on Laryngology, Otology and Rhinology: Discussion by Dr. Horace Newhart of Minneapolis.

Section on Pathology and Physiology (Joint meeting with Section on Gastro-enterology and Proctology): Paper, "The Gastro-intestinal Tract and the Liver," Dr. Frank C. Mann, Rochester, sectional vice chairman. Paper, "Gastroscopic Observation in Duodenal Ulcer," Drs. J. B. Carey and R. S. Ylvisaker, Minneapolis.

Section on Nervous and Mental Diseases: Discussion by Dr. Bayard T. Horton of Rochester.

Section on Preventive and Industrial Medicine and Public Health: Paper, "Results of Use of Multiple Vitamins for Prevention of Colds," by Dr. Harold S. Diehl of Minneapolis, member of the sectional executive committee.

Section on Urology: Discussion by Dr. William F. Braasch, Rochester. Paper, "Carcinoma of the Prostate Gland: Clinical Data Concerning 253 Cases Treated by Transurethral Resection," by Dr. Gershom J. Thompson of Rochester, sectional vice chairman. Paper, "The Recognition and Treatment of the Incipient Carcinoma of the Prostate Gland," by Dr. Charles

D. Creevy of Minneapolis. Dr. Frederic E. B. Foley of Saint Paul is a member of the sectional executive committee.

Section on Orthopedic Surgery: Paper, "The 'Combined Operation' in Low Back and Sciatic Pain," by Drs. Ralph K. Ghormley, J. Grafton Love and Henry Herman Young of Rochester.

Section on Gastro-enterology and Proctology: Discussions by Dr. Walter C. Alvarez of Rochester, Dr. Walter A. Fansler of Minneapolis, and Dr. J. A. Bargen of Rochester. Paper, "Nonspecific Types of Ulcerative Proctitis: Treatment and Prognosis," by Drs. Philip W. Brown and Louis A. Buie of Rochester. Paper, "Diverticula of the Colon: Proctoscopic Findings as an Aid in the Diagnosis," by Dr. R. J. Jackman, Rochester. Paper, "Ulcerating Lesions of the Stomach," Dr. Byrl R. Kirklin, Rochester.

Section on Anesthesiology: Discussions by Dr. Ralph T. Knight of Minneapolis and Dr. Bayard T. Horton, Rochester. Paper, "Postoperative Bronchoscopy," Drs. Herbert W. Schmidt, Lloyd H. Mousel and S. W. Harrington of Rochester. Dr. John S. Lundy, Rochester, is sectional secretary.

Section on General Practice: Paper, "What Causes Gas?" by Dr. Walter C. Alvarez, Rochester.

* * *

Among those participating in the scientific exhibit at the American Medical Asociation meeting are:

Special Exhibit on Backache: Drs. Ralph K. Ghormley of Rochester, Miland E. Knapp of Minneapolis and Frank Krusen of Rochester.

Poliomyelitis: Lectures and demonstrations on the Kenny Technique, presented by the National Foundation for Infantile Paralysis and the University of Minnesota School of Medicine, Drs. Wallace H. Cole, Miland E. Knapp and John F. Pohl of Minneapolis.

Section on Practice of Medicine: Drs. E. J. Kepler, M. H. Power and F. J. Robinson of Rochester, "Diagnosis and Treatment of Addison's Disease."

Section on Surgery, General and Abdominal: Dr. James C. Masson, Rochester, "Use of Fascia Lata in Repair of Hernias."

Section on Obstetrics and Gynecology: Drs. L. M. Randall, M. C. Piper, L. A. Brunsting and M. B. Dockerty, Rochester, "Kraurosis and Allied Lesions of the Vulva and Certain Neoplasms of the Ovary."

Section on Experimental Medicine and Therapeutics: Drs. Asher Chapman and S. F. Haines of Rochester, "Some Relationships of the Thyroid and Pituitary Glands to Iodine Metabolism." Also, Drs. George M. Higgins and Dr. Ray D. Williams of Rochester and Dr. Arthur Gatz of Carleton College, Northfield, "Reactions in Young Rats Fed Human Diets Low in the Vitamin B Complex."

Section on Urology: Drs. R. K. Ghormley and M. B. Coventry of Rochester, "Degenerative and Pathologic Changes in Lumbosacral Intervertebral Disks."

Section on Anesthesiology: Drs. L. H. Mousel, H. W. Schmidt, and A. H. Bulbulian, Rochester, "Causes, Prevention and Treatment of Postoperative Atelectasis."

Pause at the familiar red cooler for ice-cold Coca-Cola. Its life, sparkle and delicious taste will give you the real meaning of *refreshment.*

Disabilities occasioned by war are covered in full.

86c out of each $1.00 gross income used for members benefit

PHYSICIANS CASUALTY ASSOCIATION
PHYSICIANS HEALTH ASSOCIATION

Hospital, Accident, Sickness

INSURANCE

For ethical practitioners exclusively
(57,000 Policies in Force)

LIBERAL HOSPITAL EXPENSE COVERAGE	**For $10.00 per year**
$5,000.00 ACCIDENTAL DEATH **$25.00 weekly indemnity, accident and sickness**	**For $32.00 per year**
$10,000.00 ACCIDENTAL DEATH **$50.00 weekly indemnity, accident and sickness**	**For $64.00 per year**
$15,000.00 ACCIDENTAL DEATH **$75.00 weekly indemnity, accident and sickness**	**For $96.00 per year**

40 years under the same management
$ 2,220,000.00 INVESTED ASSETS
$10,750,000.00 PAID FOR CLAIMS
$200,000 deposited with State of Nebraska for protection of our members.
Disability need not be incurred in line of duty—benefits from the beginning day of disability.
Send for applications, Doctor, to
400 First National Bank Building Omaha, Nebraska

A DIAPER SERVICE
you can recommend with
Complete Confidence

NATIONAL INSTITUTE OF DIAPER SERVICES — MEMBER

Our advertising accepted in the Journal of the American Medical Association

Baby's Diaper Service Company

2741 HENNEPIN AVENUE

St. Paul Midway 4682 **Minnetonka Enterprise 3627** **Minneapolis Locust 4288**

Section on Preventive and Industrial Medicine and Public Health: "Dietary Deficiency Diseases" by the Council on Foods and Nutrition, AMA, and the Food and Nutrition Board of the National Research Council, of which Dr. R. M. Wilder, Rochester, is a member.

Section on Orthopedic Surgery: Drs. R. K. Ghormley and M. B. Coventry, Rochester, "Degenerative and Pathologic Changes in Lumbosacral Intervertebral Disks."

The representative to the Scientific Exhibit from the Section on Nervous and Mental Diseases is Dr. F. P. Moersch, Rochester; from the Section on Dermatology and Syphilology, Dr. Hamilton Montgomery, Rochester.

* * *

The Connecticut State Medical Society celebrated its 150th anniversary meeting at Middletown, Connecticut, on June 3 and 4, 1942. It was here that on October 9, 1792, thirty-six practitioners of medicine of the State of Connecticut gathered at the Court House for the first meeting of the society. The society was the fourth state medical society to be established in America and is the third to have had continuous existence since its founding. It is interesting to note that all but two of the first names of the founders, from Elnathan Beach to Jeremiah West, were names taken from the Bible.

HOSPITAL NOTES

A $1,500 addition is being constructed on the Mounds Park Hospital in Saint Paul. Miss Mary Danielson is superintendent.

* * *

The resignation of Bernard S. Andrus of South Saint Paul as a member of the board of the Mineral Springs Sanatorium at Cannon Falls, has been accepted by the commissioners of Dakota County. Herbert Swanson has been appointed to succeed him.

* * *

A course for nurses in emergency hospital procedures was given at the University of Minnesota Center for Continuation Study, June 3, 4 and 5.

* * *

National Hospital Day, May 12, celebrated on the 122nd anniversary of the birth of Florence Nightingale, had added significance at Saint Barnabas Hospital in Minneapolis this year. It was the occasion of the dedication of the new children's unit. Open house was held.

* * *

At the annual meeting of the Winona (Minnesota) General Hospital Association, L. A. Geise and J. A. Henderson were elected members of the association, a group of sixteen in whom title to the community institution rests. They succeed Dr. G. J. Tweedy, resigned, and the late S. L. Prentiss.

L. H. Bailey was reëlected president; H. R. Wiecking, vice president; H. K. Brehmer, secretary. J. R. McConnon was named treasurer.

George M. Edblom, superintendent, reported that hospital service was provided 3,270 patients during the year ending May 1.

BOOK REVIEWS

Books listed here become the property of the Ramsey, Hennepin and St. Louis County Medical libraries when reviewed. Members, however, are urged to write reviews of any or every recent book which may be of interest to physicians.

LANE MEDICAL LECTURES—The Lymphatic System. Its Part in Regulating Composition and Volume of Tissue Fluid. By Cecil K. Drinker, Professor of Physiology and Dean of the School of Public Health, Harvard University. 101 pages. Illus. Price, $2.35 cloth, $1.50 paper cover. Stanford University, Calif.: Stanford University Press, 1942.

NEPHRITIS. Leopold Lichtwitz, M.D. Chief of Medical Division of the Montefiore Hospital, Clinical Professor of Medicine, Columbia University, New York. 328 pages. Illus. Price, $5.50 cloth. New York: Grune & Stratton, 1942.

EYE MANIFESTATIONS OF INTERNAL DISEASES. I. S. Tassman, M.D., Associate Professor of Ophthalmology. Graduate School of Medicine, University of Pennsylvania, Philadelphia, Attending Surgeon, Wills Hospital, Philadelphia. 542 pages. Illus. Price, $9.50, cloth. St. Louis: C. V. Mosby Co., 1942.

MANAGEMENT OF THE SICK INFANT AND CHILD. Sixth Revised Edition. Langley Porter, B.S., M.D., M.R.C.S. (Eng.), L.R.C.P. (Lond.), Dean Emeritus, University of California Medical School and Professor of Medicine; formerly Professor of Clinical Pediatrics, University of California Medical School; formerly Visiting Pediatrician San Francisco Children's Hospital, etc.; and William E. Carter, M.D., Director of University of California Hospital, Out-Patient Department, formerly Chief of Children's Clinic, University of California Hospital; formerly Attendant Physician, Los Angeles County Hospital, etc. 977 pages. Illus. Price, $11.50, cloth. St. Louis: C. V. Mosby Co., 1942.

PATHOLOGY OF THE ORAL CAVITY. Lester Richard Cahn, D.D.S. Associate Professor of Dentistry (Oral Pathology), Columbia University; Fellow of the American Association for the Advancement of Science, Fellow of New York Academy of Dentistry, Associate Fellow New York Academy of Medicine. 240 pages. Illus. Price, $5.50, cloth. Baltimore: Williams & Wilkins Co., 1941.

SYNOPSIS OF ANO-RECTAL DISEASE. Second Edition. Louis J. Hirschman, M.D., F.A.C.S., Ex-Vice President, A.M.A., Ex-Chairman, Section on Gastroenterology and Proctology, A.M.A.; Ex-President, American Proctologic Society; Chairman, American Board of Proctology, Inc.; Professor of Proctology Wayne University, etc. 315 pages, Illus. Price, $4.50, flexible binding. St. Louis: C. V. Mosby Co., 1942.

SYNOPSIS OF MATERIA MEDICA, TOXICOLOGY AND PHARMACOLOGY. Second Edition. For Students and Practitioners of Medicine. Forrest Ramon Davison, B.A., M.Sc., Ph.D., M.B. Medical Department, Upjohn Company, Kalamazoo, Michigan; formerly Assistant Professor of Pharmacology, School of Medicine, University of Arkansas, Little Rock. 695 pages. Illus. Price, $5.75, flexible. St. Louis: C. V. Mosby Co., 1942.

NIGHT OF FLAME. A Novel by Dyson Carter. 337 pages. Price, $2.50, cloth. New York: Reynal & Hitchcock, Inc., 1942.

SMITH-DORSEY
Solution of Estrogenic Substances (in Peanut Oil)

Mercy walked with the discovery of the remedial action of estrogenic substances. It walks today . . . where carefully regulated laboratories produce and distribute these products . . . And most of all, where competent physicians—alert to symptoms—administer estrogens for these various conditions: natural and artificial menopause, gonorrheal vaginitis in children, kraurosis vulvæ, pruritis vulvæ . . .

Supplied as follows by the SMITH-DORSEY LABORATORIES:

Ampoules
In boxes of 12, 25 and 100
1 c.c. Ampoule 2,000 units per c.c.
1 c.c. Ampoule 5,000 units per c.c.
1 c.c. Ampoule 10,000 units per c.c.

10 c.c. Ampoule Vials 5,000 units per c.c.
10 c.c. Ampoule Vials 10,000 units per c.c.
10 c.c. Ampoule Vials 20,000 units per c.c.

The SMITH-DORSEY COMPANY • Lincoln • Nebraska

Vocational Hospital

. . . An integral part of the Miller Vocational High School offers two special features—Patients receive a maximum of personal attention from student practical nurses—All food is prepared under the direction of a qualified dietitian. Patients remain under the care of their own physicians.

Director of Nurses—M. H. WOLTMAN, R.N., B.S.
Superintendent & Dietitian—H. B. BROWN, B.S.

Physicians may secure services of Vocational nurses by calling Nurses Headquarters and asking for a Vocational Nurse

Bridgeport 2281

5511 South Lyndale - - - Minneapolis

REST HOSPITAL

A quiet, ethical hospital with therapeutic facilities for the diagnosis, care and treatment of Nervous and Medical cases. Invites coöperation of all reputable physicians who may supervise the treatment of their patients.

PSYCHIATRISTS IN CHARGE
Dr. Hewitt B. Hannah
Dr. Joel C. Hultkrans

2527 2nd Ave. S., Minneapolis, Phone At. 7369

NATIONAL FORMULARY, Seventh Edition. Completely revised and considerably enlarged. American Pharmaceutical Association. Price $6.00. Easton, Pennsylvania: The Mack Printing Company, 1942.

Included among the new monographs in N.F. VII are Ammoniacal Solution of Silver Nitrate and Zinc-Eugenol Cement, two important dental preparations; and Cherry Juice and Raspberry Juice to provide a convenient method of preparing the official Syrups and making it possible for pharmacists to prepare them at any time of the year instead of merely during the fresh fruit season as was the case formerly when the syrups were prepared from the fruit. Preparations of the disodium salt of 2, 7-dibrom-4-hydroxymercurifluorescein, introduced under the proprietary name "Mercurochrome," are admitted to the new N.F. under the title "Merbromin."

Neocalamine, a new form of calamine which more nearly approximates flesh color, is included and formulas are provided for a lotion, phenolated lotion, and ointment of this drug. These new preparations are much more agreeable to use than those made with calamine and in time will probably completely replace them.

An important feature of the new Edition is a greatly augmented section devoted to materials and preparations for use in the Clinical Laboratory. Pharmacists will find this section a comprehensive guide to the reagents ordinarily used by the Clinical Laboratory and by the physician who does laboratory examination in his office.

Seventy-one articles, official in U.S.P. XI but not admitted to U.S.P. XII, have been added to the N.F. in order to provide standards of purity, quality, and strength necessary to their use.

Publication of the Seventh Edition of the National Formulary marks the first step in the continuous Revision program which has been adopted by the American Pharmaceutical Association in order to keep this compendium up to date with advances in pharmacy and medicine.

AMERICAN FOUNDATIONS AND THEIR FIELDS. 5th revised edition. Compiled by Geneva Seybold. 274 pages, 12 tables, $5.00, cloth. New York City: Raymond Rich Associates, 1942.

This volume is a comprehensive study of American foundations and family trusts which have made grants to outside agencies and individuals. It brings up to date the survey of the same title published in 1939 by Raymond Rich Associates, and earlier editions issued by the Twentieth Century Fund.

Primarily a reference handbook, it presents basic data, listing the chief foundations, reporting their capital assets, and analyzing the purposes for which they spend their incomes. All data have been checked and authorized by responsible foundation executives.

A convenient directory section gives the names and addresses of 314 foundations, including 9 reported on for the first time, the names of their officers and trustees, the purposes for which the foundations were set

up, the year established, the methods of operation, the foundations' direct activities, their total capital assets, their total expenditures and their total grants for the year 1940.

The specific grants made by the foundations, totaling payments of nearly $40,400,000 in 1940, are classified according to the fields in which the appropriations were made. The survey shows that Medicine and Public Health continue to rank first, although Education runs a close second, and Social Welfare third, among the fields supported by foundations. Comparative figures showing the grants in various fields for the years 1934, 1937 and 1940 indicate highly interesting trends in the flow of foundation funds.

Other illuminating tables show the growth of the capital assets of individual foundations since 1934, until in 1940 a total capitalization of $1,073,572,367 was reported by 162 foundations.

Those who have the responsibility of investing college endowments or other large sums for philanthropic purposes will find of particular value an analysis of foundation investments, with amounts given in both dollars and in percentages of the total investments. A new feature of this edition is a comparison of foundation investment portfolios for 1937 and 1940.

Another new feature is a survey of support available for education through student loan funds. The thirty-two funds under survey made loans totaling $1,158,740 during 1940 applicable to tuition in more than one institution.

The volume, a compact library of information concerning foundation activity, provided by the foundations themselves, brings together much scattered data and also presents a considerable body of useful material that is available in no other form.

DIRECTORY OF MEDICAL SPECIALISTS. Certified by American Boards. Pages: xvi + 2,495. Price: $7.00. New York: Columbia University Press, 1942.

Since the first edition of the "Directory of Medical Specialists" appeared, more than four thousand doctors have taken their Board examinations. This second edition, therefore, contains complete information about more than eighteen thousand certified Diplomates. And not only is the book larger by that many new Diplomates, but also the information about each doctor is more complete than it was before.

This book is not only a directory to medical specialty but is also an index to a trend in medical development—one which has grown more than twenty-five per cent in the last two years. Needless to say, the value of this book to a nation at war is tremendous. To Washington officials, to army and navy administrators, as well as to local and regional selective service executives, the "Directory of Medical Specialists" is becoming increasingly useful.

A separate section is devoted to each American Board, with both a geographic and a biographic listing of its Diplomates. In addition, there is a complete alphabetic list of all the Diplomates. In this list there

- *Auditing Accounts Receivable*
- *Classifying Delinquent Accounts*
- *Saving Good Will*
- *Re-establishing Good Will*

County Medical and Dental Audit

Hutchinson **Minnesota**

Affiliated with

Northwestern Adjustment Co.

518 Bremer Arcade Bldg.

St. Paul **Minnesota**

Send us your slow collection items.

All accounts made by personal calls.
We specialize in Medical and Dental Accounts.

Both companies bonded and licensed under Minnesota State Laws

Don't Wait Too Long

Illustrated, a handy model for your desk. Approximately 8 inches in diameter and 9 inches high.

$10.95

It's time to think of hot weather and fans once more. This year try one of the modern KISCO CIRCULAIR units, and you'll be glad your old fan is worn out.

These clever fans lift the cooler air up and distribute it in all directions at one time.

And don't wait too long—as you know—deliveries are pretty irregular these days.

BROWN & DAY, INC.

62-64 East 5th Street St. Paul, Minn.

CASE HISTORY No. 104

ASTHMA and PERENNIAL HAY FEVER

Miss I. M. ——. Symptoms: Asthma and Perennial Hay Fever. Patch tests revealed sensitivity to Ragweed Giant, Ragweed Short, all Feathers and Orris Root (last named contained in cosmetics used by patient). Complete relief of Asthma and sneezing after perennial treatment and discontinuance of former cosmetics. Subsequent regime of AR-EX Cosmetics brought no recurrence of conditions.

Prescribe AR-EX Cosmetics whenever patient care requires beauty aids free from allergens and irritants.

Send for Formulary

AR-EX COSMETICS, INC.

6 N. MICHIGAN AVE. • CHICAGO, ILL.

AR-EX COSMETICS.

are addresses and indications of specialty certification, while in the geographic section complete biographic information is given. The organization and examination requirements of each of the American Boards are explained in full.

All these features make the Directory unique and invaluable to doctors (specialists or general practitioners), hospitals, social agencies, libraries, medical societies, business organizations, etc. It will help hospital officials pass on the ability of candidates for staff positions. It will provide medical society officers with authoritative lists. Family physicians can form an accurate judgment of the qualifications and ability of specialists in any branch of medicine for the benefit of patients. In short, it has so many practical uses that it is certain to be an indispensable reference tool for thousands of individuals and organizations.

LITTLE WHITE LIES

The prime dilemma through all medical history has been whether to tell the truth to a fatally ill patient.

There are those who believe that no good ever comes out of deception; that it is more honest and more humane in the long run to tell a patient that he is the victim of an incurable or inevitably fatal disease. There are those who say that such a practice is not only cruel but inaccurate, since tomorrow some new remedy may come into our ken which will make a formerly hopeless disorder treatable.

Patients themselves usually say: "Tell me the truth, Doctor, I'd rather know, and I can take it." It is doubtful, however, whether even the sturdiest wants to have a death warrant read to him.

This much seems incontrovertible: the physician who discovers or diagnoses a hopeless ailment must transmit that information to some responsible member of the family. To tell the patient that he is doomed to an early death, however, seems pointless, for it is impossible to see any good that could come out of such a procedure except in a small group of cases in which rearrangement of a man's business affairs might make for financial security in his family. Even in these cases it would seem sufficient to tell the patient that he would be too sick to carry on his business for a long time, and that he should adjust his affairs accordingly.

To transmit a verdict of inevitable death under any other circumstances, however, appears utterly without justification except perhaps the abstract one of rigid truthfulness, no matter what the cost. Since the emotional state of the patient is so large a factor and since the hopelessly sick patient has so few comforts, there would appear to be no justification for taking from the tiny reservoir still available, that one last blessing in Pandora's Box.—*The Journal of the Medical Society of New Jersey*, October, 1941.

DANIELSON MEDICAL ARTS PHARMACY, INC.

10-14 Arcade, Medical Arts Building

PHONES: ATLANTIC 3317 ATLANTIC 3318

825 Nicollet Avenue—Two Entrances—78 South Ninth Street MINNEAPOLIS

HOURS: WEEK DAYS—8 to 7 SUN. AND HOL.—10 TO 1

Always DEPENDABLE PRODUCTS

PRESCRIBE OR DISPENSE ZEMMER

Pharmaceuticals . . . Tablets, Lozenges, Ampoules, Capsules, Ointments, etc. Guaranteed reliable potency. Our products are laboratory controlled. Write for general price list.

Chemists to the Medical Profession MIN. 6-42

THE ZEMMER COMPANY, Oakland Station, PITTSBURGH, PA.